PB84-104769

Model State Information System Training Program. Volume 7. User's Manual (1983 Edition)

Cincinnati Univ., OH

Prepared for

Environmental Protection Agency, Washington, DC

1983

U.S. Department of Commerce
National Technical Information Service
NTIS

BIBLIOGRAPHIC INFORMATION

PB84-104769

Model State Information System Training Program. Volume 7.
User's Manual (1983 Edition).

1983

PERFORMER: Cincinnati Univ., OH. Southwestern Ohio Regional
Computer Center.
Contract EPA-68-01-6346

SPONSOR: Environmental Protection Agency, Washington, DC.
Office of Drinking Water.
EPA-440/677-028-16-R1

Supersedes PB-281 233. See also PB84-104777.

The purpose of this User's Manual is to provide the State and Regional Offices of the Environmental Protection Agency necessary information on the use of the Model State Information System. This manual was written as both a reference guide to be used after a SWORCC training team has presented its courses to the user State or Regional Offices and as an educational tool and reference for the personnel who did not attend those courses.

KEYWORDS: *Information systems, *Specialized training.

Available from the National Technical Information Service,
Springfield, Va. 22161

PRICE CODE: PC A12/MF A01

50272-101

REPORT DOCUMENTATION PAGE

1. REPORT NO. EPA 440/6-77-028-16 _R1

2.

3. Recipient's Accession No. PB84 104769

4. Title and Subtitle MSIS Volume VII: Users Manual Parts 1 and 2 (1983 Edition)

5. Report Date 1983

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.

(C) EPA 68-01-6346

(G)

12. Sponsoring Organization Name and Address

Office of Drinking Water (WH-550)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

13. Type of Report & Period Covered indefinite

14.

15. Supplementary Notes (1983 Edition)
Replaces NTIS Ascession No. PB281233

16. Abstract (Limit: 200 words)

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement:

19. Security Class (This Report)

20. Security Class (This Page)

21. No. of Pages

22. Price

(See ANSI-Z39.18)

See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

PB84-104769

Model State Information System
Training Program

Volume VII

USER'S MANUAL

Prepared for the

U.S. Environmental Protection Agency
Office of Water Supply
Washington, D.C.
under GSA Contract No. GS-05S-10458
Task Assignment OWS-77-01

by the

SouthWestern Ohio Regional Computer Center
Cincinnati, Ohio

July, 1977

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

ACKNOWLEDGEMENTS

The detail systems design, programming, testing, and documentation of a computer system of the scope of the Model State Information System was indeed a major undertaking. Throughout the ten months which were necessary to accomplish this effort, a great number of persons contributed significantly through their input, guidance, and support. The success of this endeavor would not have been possible without the participation and cooperation of those involved. Although it would be impossible to mention everyone, specific recognition is due the following persons.

From the SouthWestern Ohio Regional Computer Center Development Team, Ronald Lake, Daniel Meurer, John Brooks, and Gregory Fish were the senior team leaders who were responsible for the design, programming, and testing phases of the development. They worked with the following group of analysts and programmers:

Cecilia Bereskin
Nancy Binne
Richard Binne
Pamela Blatter
Michael Bosley
Jerry Braun
William Fletcher
Hugh Hamberger
Pauline Heheman
Danny Jee
Robert Kraft
Penni Martin
Margaret Mays
Jack Stunkel
John Sullivan
Charlotte Taber
Paul Walasek
Charlie Webb
David Westphal
Tim Wolf
William Wood
Kenneth Young

Thomas Manz worked on some of the system design and then worked with our Librarian, Thomas Moerlein and his assistant Barbara Klopp, in the creation and accumulation of the MSIS System Documentation. Finally, credit must be given to the Director of SWORCC's Computer Systems Division, John Rust, for his unending assistance throughout the project.

From the U.S.E.P.A., Office of Water Supply, Arnold Kuzmack and Fredrick T. Martin were almost daily barraged with questions of vital concern and importance to the MSIS. Peter Bengtson and William Long provided many long hours of insight and assistance to SWORCC in its endeavor to understand more fully the purpose and intent of our work.

From the U.S.E.P.A., Management Information Data Systems Division, Willis Greenstreet, and from the Computer Services and Systems Division of the Environment Research Center, Edward Nime, provided necessary technical guidance and support on numerous occasions.

From the MSIS Subcommittee of the Conference of State Sanitary Engineers, Oscar Adams, Eugene Lubiniski, Gordon Oliver, and John Saucier provided the system of checks and balances as they represented the desires of the States throughout the life of the MSIS Development, from its inception to its completion.

To all those that we have mentioned, plus the literally hundreds that we have not, we extend our sincere appreciation and thanks for your assistance and cooperation.

Bruce O. Keith
Janis Cowperthwaite
Project Managers, OWS-76-02

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FORWARD

The SouthWestern Ohio Regional Computer Center (SWORCC), as part of the University of Cincinnati, was contracted to provide detail systems design, programming support, and related services for the development of the Model State Information System (MSIS) for the Environmental Protection Agency, Office of Water Supply, Washington, D.C. .These services have been provided in accordance with GSA Contract No. GS-05S-10030, EPA Purchase Order No. CA-6-99-2885-D.

As part of the contract, a series of eight (8) documentation manuals has been created:

1. User's Manual
2. Installation Manual
3. Operation Manual
4. Data Entry Instruction Manual
5. Keypunch Instruction Manual
6. Program Documentation, Volume I, Subsystem Descriptions
7. Program Documentation, Volume II, Exhibits
8. Program Documentation, Volume III, Data Element Dictionary

Purpose

The purpose of the User's Manual is to provide the State and regional offices of the Environmental Protection Agency necessary information on the use of the Model State Information System (MSIS) as designed and programmed by the SouthWestern Ohio Regional Computer Center (SWORCC) of Cincinnati, Ohio. This manual was written as both a reference guide to be used after the SWORCC training team has presented its courses to the user State or regional office and as an educational tool and reference for the personnel who did not attend those courses.

This manual will cover the following topics:

- The flexible processes used to select and sort data for reporting
- The concept of compliance cycles used for the analysis of water content
- A listing of all the Standard Error Messages contained on the Error Message Table (EMT) and for the processing options
- A general description of each of the subsystems; how to enter data and interpret output reports.

Introduction

Developmental History

The Office of Water Supply (OWS) of the U.S. Environmental Protection Agency is responsible for implementing the provisions of the Safe Drinking Water Act of 1974. The purpose of this legislation is to ensure that water supply systems serving the public meet minimum national standards for the protection of public health. Since the intent of Congress was that the primary monitoring and enforcement functions would be implemented through the States who accepted primary enforcement responsibility (primacy), the Office of Water Supply concluded that the development of computerized information system would be of substantial benefit to those States who desired to utilize such a capability.

In consideration of this defined need, the OWS entered into a contract with American Management Systems, Inc. (AMS), of Arlington, Virginia. The purpose of this contract was the establishment of a concept underlying the informational system requirements. This resulted in the concept of a Model State Information System (MSIS). An initial report entitled, Program Evaluation Requirements, Concepts, and Plans for the EPA Safe Drinking Water Program, presented this concept and defined the minimum set of data management functions required, allowing some degree of variability, for the operation of a satisfactory enforcement program.

Ten subsystems (or functions) were originally identified as constituting the acceptable data management system. They consisted of the following:

- Public Water System Inventory Subsystem
- Water Quality Compliance Subsystem
- Variances and Exemptions Subsystem
- Laboratories Inventory Subsystem
- Enforcement Actions Subsystem
- Sanitary Survey Subsystem
- Mailing Subsystem
- Regulations Subsystem
- Federal Reporting Subsystem
- Management Reporting Subsystem

Subsequent to this initial effort, AMS prepared a feasibility study and general systems design for MSIS. A draft report entitled, Model State Information System for the Safe Drinking Water Program, Volumes I-III. dated January 12, 1976, was provided and a definitive report entitled, Design Document: Definition of Systems Requirements, dated April 15, 1976, was also provided. These documents established the draft general systems design of MSIS. Of the original ten subsystems, two, the Laboratories Inventory Subsystem and the Management Reporting Subsystem, were eliminated.

The elimination of a separate Management Reporting Subsystem was due to the variety of report formats available in other subsytems which fulfill management reporting requirements. The Laboratories Inventory Subsystem was eliminated because the small number of laboratories which will be certified for the analysis of drinking water did not justify the automation of this original feature of the MSIS. A third major change to the initial subsystem design involved the expansion of the Mailing Subsystem to include the maintenance of data on certified public water system operators. In consideration of this modification, the subsystem was renamed the Operator and Mailing Subsystem.

On June 15, 1976, American Management Systems, Inc. (AMS) delivered final versions of the following documents which were produced under contract with EPA:

- Feasibility Study for Development and Implementation of a Model State Information System for EPA's Safe Drinking Water Program.
- Introduction to the Model State Information System (MSIS).
- Model State Information System for the Safe Drinking Water Program (Volume I, Subsystem Description; Volume II, Exhibits; Volume III, Data Element Dictionary).

These documents established the final general systems design of MSIS. They included program functional definitions, file and data element definitions, sample input forms, table definitions, and sample report layouts for eight subsystems.

In March, 1976, the services of the SouthWestern Ohio Regional Computer Center (SWORCC) of the University of Cincinnati were contracted for the purpose of defining a detailed technical plan for accomplishment of detailed systems design, programming, testing/debugging and final documentation of MSIS. This plan entitled, "Implementation Plan for the Model State Information System" was delivered to the U.S.E.P.A., Office of Water Supply in draft form on May 10, 1976, and in final form on June 10, 1976.

With the acceptance of the aforementioned implementation proposal, detail efforts as outlined in the proposal were initiated in June of 1976 by the SouthWestern Ohio Regional Computer Center. The detail systems design, programming, testing, and documentation were completed on May 6, 1977. This document, as well as the Program Documentation, Installation Manual, Operation Manual, Keypunch Instructions Manual, Data Entry Instructions Manual, and Data Element Dictionary were produced by SWORCC to fully document the delivered final version of MSIS.

B. The Model State Information System

The Model State Information System (MSIS) is a computer-based management information system for use by individual States who choose to utilize such a capability, and by EPA regional offices. Its purpose is to provide the minimum data management capabilities to Water Supply administrators in the monitoring and enforcement of water quality for the protection of public health, as well as facilitating the reporting of changes in Water Supply inventory, a summary of violations, a summary of variances and exemptions, and a summary of enforcement actions as specified under the National Interim Primary Drinking Water Regulations. MSIS was designed with these two primary objectives in mind.

During the detailed systems design, the University of Cincinnati Computing Center (UCCC) identified additional functional capabilities necessary for the successful operation of the MSIS. Several of these capabilities were grouped together to form a ninth subsystem which was entitled the Standard Processing Subsystem. Therefore, MSIS in its final delivered form consisted of nine separate, but interrelated, subsystems (eight as defined by the AMS plus the Standard Processing Subsystem).

In the fall of 1981, the UCCC, at the direction of the Office of Drinking Water began a modification designed to combine the Enforcement Actions File with the Violations File. This modification reduced the number of subsystems from nine to eight.

To meet minimum processing requirements, five of the eight subsystems (the mandatory subsystems) must be automated if any part of MSIS is to be automated at all. The remaining three subsystems (the optional subsystems) can be automated in any possible configuration based on the specific needs and preferences of the individual State or EPA region. The following provides a brief description of each of the MSIS subsystems.

Mandatory Subsystems

Public Water System Inventory

The purpose of this subsystem is to maintain basic descriptive data about Public Water Systems such as name, address, type of system (community or non-community), population served, number of service connections, sources of water, etc. These data will be kept on a PWS Inventory File to facilitate operation of other subsystems. The function of the PWS Inventory Subsystem is to create and maintain this file.

Water Quality Compliance Subsystem

The main purpose of this subsystem is to provide state water supply managers with the information required to monitor water quality in accordance with both Federal and State regulations. It will maintain records of water samples and lab results, identify violations of maximum contaminant levels and minimum sampling requirements, alert state officials to violations requiring public notification, provide optional scheduling of sampling and analysis, and produce a number of detail and summary reports of compliance.

Regulations Subsystem

The purpose of this subsystem is to create and maintain the Regulations Table which contains the National Interim Primary Drinking Water Regulations as well as the State's own regulations. Due to its small size and infrequent updating, the table will be recreated each time it is changed.

Federal Reporting Subsystem

This subsystem produces the data required for annual reporting to the EPA. These data include records of all violations, variances and exemptions, and enforcement actions that occurred in the preceeding federal fiscal year. Also included are records of all Public Water Systems that were active in the preceeding federal fiscal year. This subsystem retrieves all required data elements from other system files, reformats them and creates files for reporting to the EPA. By using this subsystem and the Variances and Exemptions Subsystem, the state can satisfy annual federal reporting requirements without preparing special written documents.

Standard Processing Subsystem

The purpose of this subsystem is to support the other seven MSIS subsystems. It will create necessary table files, maintain a history file, and provide for data entry error reporting.

Optional Subsystems

Variances and Exemptions Subsystem

The Variances and Exemptions (V&E) subsystem maintains V&E information for two purposes. First, this type of information is required for EPA Reporting. Second, information is required for monitoring progress against compliance schedules specified in particular variances and exemptions for particular Public Water Systems. If a variance or exemption is granted, the state must prescribe a schedule for compliance and interim control measures within one year of the date it is granted. Reports produced by the V&E subsystem will allow states to monitor adherence to the schedule.

Sanitary Survey Subsystem

The purpose of this system is to provide a method of scheduling Public Water Systems for periodic sanitary surveys, in order to effectively utilize a limited amount of trained manpower. The scheduling algorithm selects PWS's for surveys based upon PWS type (community or non-community), size of population served, compliance history, number of violations, source of water (ground or surface), and date of last survey. States may assign varying weights to each factor to reflect their own special priorities and resource constraints.

Operator and Mailing Subsystem

The Operator and Mailing Subsystem is designed for two purposes: first, to provide management of data concerning certified operators, and second, to provide the State with the capability to manage a mailing distribution list for mailing material to local governments, cities, consulting engineers, etc. Since the mailing list and operator data requirements are essentially the same, these two functions are combined in a single subsystem.

User Defined Selection of Information

The user must have the ability to select certain types of records for examination and reporting. MSIS provides this ability in special program modules through the use of two processing options: SEL1 and SEL2. The use of these options is standard throughout MSIS, although each subsystem which allows these options has its own input forms to use. (See Exhibits and Data Entry Instructions for full details on each.)

First, it is necessary to become familiar with the SEL1 and SEL2 forms and the processing logic they represent. (See figures III.1 and III.2) The example of the SEL1 form actually represents thirteen cards, one for each line, where the SEL2 form represents only one card. They are tied together logically by the Data Element Logic ID Number, columns 30-31 in the SEL1 card, and the pre-printed numbers on the SEL2 form. A maximum of thirty-five (35) SEL1 cards are allowed, and each must have a unique Data Element Logic ID Number from 01-35. If there is any duplication, the program will not run. A maximum of thirty-five (35) SEL2 cards is also allowed.

There are two logical relationships which occur while using SEL2 cards. For example, say there are three logical conditions the user has to determine whether a record should be selected. Using the logical construct of "AND", the user might want the basic condition of : if condition A AND condition B AND condition C is true, select the record. The condition would be coded across one SEL2 form; logic ID 01 would represent condition A; logic ID 02, condition B, and so on. Now, when using the logical construct of "OR"; the basic condition might be: if condition A OR condition B OR conditon C is true, select the record. The condition would be coded on multiple SEL2 forms; logic ID 01 would be coded on multiple SEL2 forms; logic ID 01 would represent condition A and would be coded on one SEL2 form. For each OR condition, an additional SEL2 form would be coded. For this example, there would be 3 SEL2 forms. Some practical examples will follow.

When filling out the SEL1 form, make sure that the Data Element Comparative Value is left justified, i.e., start with the left-most block. As a general rule, use no more blocks than the maximum length of the data element as it appears on file. There are, however, several exceptions to that rule. Dates should be entered as a six position field in the format MMDDYY where MM = month, DD = day, and YY = the last two digits of the year. Dates appear on the file as five position Julian format dates but the programs will automatically convert the format of your input date to make the comparison. Turbidity units and air temperature allow

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for one decimal position. Maximum contaminant levels (MCL's) allow up to 15 positions: 5 whole numbers, a decimal point and nine decimal places. The decimal should be coded as part of the value in the Comparative Value. In either case, the programs will be able to make any adjustments necessary to conform to the data which is on file. Again, it must be noted that the Logic ID Number must be unique, no two SEL1 cards can have the same number.

On the SEL2 form, use only the Relational Symbols that are defined in the heading of the form. Any other symbols will stop the run of the program.

PWSI020.080 **MODEL STATE INFORMATION SYSTEM** PWSI.107

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
S E L 1 1-4	☐☐☐☐☐☐☐☐☐☐ 5-14	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 15-29	☐☐ 30-31
DUP 1 - 4	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
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Fig. III.1

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PWS1.108

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	☐☐ 5-6	02	☐☐ 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.2

As a simple example, look at figures III.3 and III.4. The example desires to select all community Public Water Systems (PWS's) in the Cincinnati area. The plant type is coded in the Data Element Mnemonic Name and the Comparative Value of "C" is coded. This information was found in the Data Element Dictionary. The relational logic as coded would be: select all records which have a plant type equal to "C" AND an area city equal to "CINCINNATI". Remember the AND condition occurs across the SEL2 card. Each Relation Symbol corresponds to the Logic ID Number as recorded in the SEL1 cards.

By adding another line to SEL1 as in figure III.5 and an additional SEL2 form, figure III.6, the relational logic has been altered to be: select all records which have a plant type equal to "C" AND an area city equal to "CINCINNATI" OR "TOLEDO".

PW31020.080 PW31.107

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
SEL1 1-4	PW-PL-TYPE 5-14	C 15-29	01 30-31
DUP 1 - 4	PW-PL-ACTY	CINCINNATI	02
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Fig. III.3

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MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PWSI.100

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	E Q 5-6	02	E Q 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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APPROVED BY ______________________________ DATE ___/___/___

Fig. III.4

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PWS1.107

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
SELI 1-4	PW-PL-TYPE 5-14	C 15-29	01 30-31
DUP 1 - 4	PW-PL-ACTY	CINCINNATI	02
.	PW-PL-ACTY	TOLEDO	03
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Fig. III.5

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MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PWS1.108

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS:
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	E Q 5-6	02	☐☐ 7-8	03	E Q 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.6

It should be noted that when using the "NX" relation symbol, care should be taken when coding the Comparative Value field. If a field is considered non-existant and is an alphanumeric field, its initialized value will be blanks. So the Comparative Value should be left blank. (See figure III.7, Logic ID Number 01). Likewise, if the field is numeric, zeros should be coded in the Comparative Value. (See figure III.7, Logic ID Number 02). The type of field can be determined from the Data Element Dictionary. If the "Data Type" field contains a "A/N", that means that the field is alphanumeric. If it contains an "N", it is a numeric field. The relational logic for this example is: select all records for which the owner name is non-existant AND the last survey date is non-existant.

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MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
SELI 1-4	PW-OWNA 5-14	15-29	01 30-31
DUP 1 - 4	PW-PL-SURV	000000	02
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Fig III 7

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS:
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	N X 5-6	02	N X 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig III.8

Now for a more complex example. First look at figures III.9 through III.12. See if you can determine what the relational logic is. Remember that an "AND" relation goes across one SEL2 card and an "OR" relation goes from one SEL2 card to the next. The relational logic is: select all records for which the PWS ID is "greater than" 0000001 AND the emergency capacity is "less than" 2,000,000 gallons, OR the plant type is "equal" to "N" for non-community AND the emergency capacity is "greater than" 100,000 gallons, OR the emergency capacity is "less than" 2,000,000 gallons AND the last survey date is "less than" or previous to 010177 AND the plant type is "equal" to "N" for non-community.

There are several situations of note in this example. First, see that the emergency capacity appears twice on the SEL1 form. This is a valid situation because two different Comparative Values are being used in different logic sequences. Second, see that two of the logic ID Numbers have been used twice in different logic sequences. This too is a valid situation because of the use of the OR condition between SEL2 cards. Third, note that we have three entirely independent conditions, any of which will cause the record to be selected if the condition is met.

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MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
SEL1 1-4	PW-ID 5-14	0000001 15-29	01 30-31
DUP 1 - 4	PW-PL-EMER	0002000000	02
.	PW-PL-TYPE	N	03
.	PW-PL-EMER	000100000	04
.	PW-PL-SURV	010177	05
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Fig III.9

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PWS1020.000 PWS1.100

MODEL STATE INFORMATION SYSTEM
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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	G T 5-6	02	L T 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.10

PWS1020,080

MODEL STATE INFORMATION SYSTEM
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PWS1.100

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOL*
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELZ 1-4	01	☐☐ 5-6	02	☐☐ 7-8	03	EQ 9-10	04	GT 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS:
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	☐☐ 5-6	02	L T 7-8	03	E Q 9-10	04	☐☐ 11-12
	05	I T 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig III.12

As a final example, consider the situation of selecting a range of values. Under normal circumstances, the field would be entered twice in the mnemonic name columns and an upper and lower range entered in the comparative values with the appropriate relational symbols used on the SEL2 card. However, certain problems arise when you are working with fields that have multiple occurrences within a record, such as the Variances and Exemptions Contaminant ID does within the PWF record.

First, let us group the following figures to illustrate the different situations that may arise. Group figures III.13 and III.14 as group one, figures III.13 and III.15 as group two, and III.13 and III.16 as group three. Then, let us use the following value groups for the contaminant ID fields which occur a possibility of four times in each PWF record:

Value Group One	Value Group Two	Value Group Three
3010	4000	3010
4000	4005	4005
4010	4010	4010
4020	4020	4020

Now, using the group one figures as an example, let us demonstrate what will happen with the three value groups. First, with Value Group One, the record would be selected because there is a value "equal" to 4000 AND there is a value "equal" to 4010. The record for Value Group Two would also be selected, and for the same reason. However, with Value Group Three, the record would not be selected because there is no value 4000.

Next, look at the group two figures. Here we are looking for an outside range of numbers. The record for Value Group One would be selected because there is a value "less than" 4000 AND there is a value "greater than" 4010. With Value Group Two, the record would not be selected because there is no value "less than" 4000. Using Value Group Three, the record would be selected because both conditions would be met.

Finally, look at figure group three. Here, we are looking for an inside range of numbers. And this is where our problem lies. With Value Group One, the record would be selected. But look closer at the results. True, there are values "greater than" 4000, AND there are values "less than" 4010. But there is actually no value between 4000 and 4010. With Value Groups Two and Three, there are values that fall within the range. But the entire situation is victim to circumstance. Therefore, the results obtained when selecting a data element based on an inside range that occurs more than once is questionable.

In summary, then, follow these basic rules when filling out the SEL1 and SEL2 forms:

- Data Element Mnemonic Name must be spelled correctly. Refer to Data Element Dictionary or Record Description for correct spelling.
- Comparative Value must be left justified and not longer than the maximum data length as recorded in the Data Element Dictionary with the exception of Turbidity Units, Air Temperature, MCL's which must have their decimal points coded, and dates which will be coded as six digits
- Data Element Logic ID Number must be unique
- Use only the six relation symbols as defined in the heading of the SEL2 form
- "AND" logical relationship exists across the SEL2 card
- "OR" logical relationship exists from one SEL2 card to the next

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MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID 1-4	DATA ELEMENT MNEMONIC NAME 5-14	DATA ELEMENT COMPARATIVE VALUE 15-29	DATA ELEMENT LOGIC ID NO. 30-31
SEL1	PW-VE-CTAM	4000	01
DUP 1 - 4	PW-VE-CTAM	4010	02
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Fig III.13

PWS1020,080 PWS1.100

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS:
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	E Q 5-6	02	E Q 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.14

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SEL2 1-4	01	LT 5-6	02	GT 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.15

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS:
LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	G T 5-6	02	L T 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

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Fig. III.16

User Defined Report Sequencing

Many of the reports produced by MSIS have a processing option called SORT. It gives the user the option of sequencing a report in a manner other than the natural sequence of the file from which the information is being obtained. If a report contains such an option, there will be a standard input form associated with that report which the user must fill out and submit with the job request in order to have the report in the requested sequence. (See Exhibits Appendix G for a complete list of reports which may be sorted according to the user defined sequence.)

Computer sorts are performed using a "sort key". This key can be defined as a body of information, in order of decreasing importance, used to sequence a greater body of information. The various data elements contained within that sort key are ordered in importance, major to minor, by the user. Therefore, the major key appears first within the sort key followed by fields, in their order of decreasing importance, down to the minor key. This terminology is important to understand in learning how to fill out the input form required to request a resequencing of a report.

Secondly, it is important to understand that the sorts are limited in such a way that the information contained in the sort key cannot exceed thirty (30) characters in their combined lengths. Therefore, when a user is filling out one of the input forms, he must use either a record description or the Data Element Dictionary (DED) to determine the lengths and mnemonic names of the data elements with which he is working. There is one exception to the rule of combining data lengths; if a data element contains more than fifteen (15) characters, only the first fifteen characters will be used in creating the sort key.

All of the input forms for the various reports have the same general format. When filling out the form, order the sort key fields from major to minor significance down the page starting with the number 01. This is a must because the column labeled "Sort Priority" will be used by the computer program to determine major (01) to minor (maximum of 30) significance. The user can fill out a maximum of six input forms per report, of course, as long as the length of the sort key requested is less than 31.

Additionally, each data element can be ordered in either ascending or descending sequence. When working with a data element that could potentially be alphabetic or numeric, it should also be noted that with IBM hardware, numbers are considered "higher" than alphabetic characters. Therefore a number would sort higher than a letter. With many other companies, however, the reverse is true. If your hardware is other than IBM, it is recommended that you ask your programming staff about the "collating sequence" of your computer so that you can make the proper decision when ordering your data.

· The following table should be useful in helping the user determine if he would like a report from any file to be sequenced in a manner other than its natural sequence.

FILE NAME	NATURAL SEQUENCE
Operator & Mailing File (OMF)	Addressee ID
Public History File (PHF)	PWS-ID
Periodic Sample File (PSF)	PWS-ID; Contaminant ID; Location Code; Sample type, date, time and key; Record Type
Public Water File (PWF)	PWS-ID
Sample Analysis File (SAF)	PWS-ID; Contaminant ID; location Code; Sample type, date, time and key; Record Type
Standard History File (SHF)	File ID, Record ID, Data Element Catalogue Number, Current Update Date
Variances and Exemptions File (VEF)	Variances and Exemptions ID
Violations File (VIF)	Violation ID
Secondary Sample File (SSF)	PWS-ID; Contaminant ID; Location Code; Sample type, date, time, and key; Record Type

Note: The above files are not a complete list of permanent files, but the only permanent files for which a sort may be done.

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MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM
STANDARD HISTORY FILE SELECTION

SORT OPTIONS FOR JOB ________________

CARD ID	SORT SEQUENCE	MNEMONIC NAME OF DATA ELEMENT	SORT MODE	
S O R T 1-4	☐☐ 5-6	☐☐☐☐☐☐☐☐☐☐ 7-16	☐ 17	A=ASCENDING D=DESCENDING
	☐☐ 18-19	☐☐☐☐☐☐☐☐☐☐ 20-29	☐ 30	A=ASCENDING D=DESCENDING
	☐☐ 31-32	☐☐☐☐☐☐☐☐☐☐ 33-42	☐ 43	A=ASCENDING D=DESCENDING
	☐☐ 44-45	☐☐☐☐☐☐☐☐☐☐ 46-55	☐ 56	A=ASCENDING D=DESCENDING
	☐☐ 57-58	☐☐☐☐☐☐☐☐☐☐ 59-68	☐ 69	A=ASCENDING D=DESCENDING

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Fig. IV.1

V. Restart Printing for Pre-printed Forms

During the printing of preprinted forms, such as turnaround documents for MSIS, certain problems may arise that require the re-printing of certain documents. For example, the printer may jam causing forms to be lost, the form may not be aligned correctly for printing, or there may be an error in the printing of the pre-printed form itself. To assist the user it is possible to restart the printing of a pre-printed form from a position other than the beginning of the file. A RESTART processing option was developed for this purpose. All that is necessary for the user to do is code the proper restart option with the sequence number that should begin the printing again. For instance, for the PWS Record Creation and Maintenance Form, code the page number of the first page you want to restart with. A table is provided below for the form, program and RESTART options which are allowable.

Form Number	Form Name	Program	RESTART
PWSI.400-401	Public Water File Record Creation and Maintenance Form (pages 1 and 2)	PWSI060	PWSI.105
WAQC.400	Chemical or Radiological Analysis Input Form	WAQC150	WAQC.125
WAQC.401	Bacteriological or Turbidity Analysis Input Form	WAQC170	WAQC.125
WAQC.402	Bacteriological or Turbidity Summary Analysis Input Form	WAQC180	WAQC.125

VI. Compliance Cycles

With ever increasing requests for higher standards of drinking water, the new Federal Regulations may increase the number of samples currently required every month for bacteriological and turbidity analysis. To more evenly distribute the workload of the user in processing the analyses made by each of its public water systems, MSIS possesses the detailed concept of compliance cycles.

Consider the case where each of the Public Water Systems (PWS's) had similar compliance timetables. There would be a congestion of data at month end or wherever the similarity may lie. To avoid such a situation, the user must have the ability to divide the PWS's in such a way as to distribute the data input across the month. It is with this idea in mind that this concept was developed.

A compliance cycle can be defined as the period of time, in days, that is required by law, between one test of water quality and another to see if they comply with federal and state standards. A compliance cycle is a monthly cycle consisting of 28 days. The value that is entered in the compliance cycle field, as in Public Water File (PWF), represents the day of the month on which the compliance cycle is based. A default value has been developed which is '01', or the first day of the month if no other day is specified.

As an example, let us consider the user who has an inventory of 3,000 community and 10,000 non-community water supplies. If he were to use the default value of the compliance cycle, he would be swamped with work every month end. So if the user were to divide his inventory into four groups of 750 community and 2,500 non-community water supplies and set their respective compliance cycles at '06', '14', '21', and '28' for monthly monitoring, the workload at his processing center would be more evenly distributed over the month. The user could input sampling data as it was received and summarize it periodically as determined by the state schedule.

It is therefore apparent that the use of the compliance cycle concept can be of great benefit to the user. But it is left to the discretion of the user how he would desire to use it, if at all.

VII. ERROR MESSAGE TABLE (EMT)

A. Introduction

When a subsystem is in the process of building the Standard Error File (SEF), usually during editing input transactions, codes are used to identify what edit error took place. Then, in Standard Error Processing program module MSIS010, the codes are matched to the Error Message Table (EMT) to obtain the appropriate error message to be printed on the Standard Error Report.

The error message codes are three digit numbers; 001 thru 999. Numbers 001 thru 100 are used for errors which caused an entire transaction to be rejected. Numbers 101 thru 400 are used as warning messages in cases where the value for a single input field is questionable but is still used as valid input. Numbers 401 thru 900 are used when the value of a specific input field is invalid and is not used in the update process. Numbers 901 thru 999 are currently reserved for future use by the state or regional offices at their discretion.

Summary Code Value Assignments

001-100	REJECT
101-400	WARNING
401-900	INVALID
901-999	reserved for future use

B. ERROR MESSAGE TABLE

Error Code	Error Message
001	REJECT-INVALID RECORD-ID
002	REJECT-RECORD ALREADY EXISTS
003	REJECT-NO MATCHING RECORD-ID
004	REJECT-RECORD IS INCOMPLETE
005	REJECT-CONTAM ID INVALID
006	REJECT-STATE VALUE TOO LOW
007	REJECT-STATE VALUE TOO HIGH
008	REJECT-FED. RECORD MISSING
009	REJECT-REC. HAS INVALID DATA
010	REJECT-NOT NUMERIC
011	REJECT-VALUE UNACCEPTABLE
012	REJECT-VALUE TOO HIGH
013	REJECT-VALUE TOO LOW
014	REJECT-NOT IN CODE TABLE
015	REJECT-PWS ID INVALID
016	REJECT-LAB NOT AUTHORIZED
017	REJECT-INVALID TRANSACT CODE

018	REJECT-REQUIRED DATA MISSING
019	REJECT-NO MATCHING MILESTONE
020	REJECT-INVALID DELETE CODE
021	REJECT-INVALID CREATE CODE
022	REJECT-TOO MANY VIOLATIONS
023	REJECT-NO MATCHING VIOLATION
024	REJECT-INVALID REQUEST CODE
025	REJECT-TOO MANY MILESTONES
026	REJECT-INVALID OCCURRENCE
027	REJECT-METHOD NOT ON TABLE
028	REJECT-DUPLICATE MILESTONE
029	REJECT-ILLEGAL DELETION
030	REJECT-ASSOC VALUE MISSING
031	REJECT-TOO MANY CONTAMINANTS
032	REJECT-NO MATCHING CONTAMINANT
033	REJECT-INVALID DATE
034	REJECT-DUPLICATE LAB-ID
035	REJECT-REC. ALREADY ENTERED
036	REJECT-DUPLICATE L2 CARD
037	REJECT-TOO MANY L1 CARDS
038	REJECT-NO MATCHING L1 CARD
039	REJECT-NO MATCHING L2 CARD
040	REJECT-TOO MANY L2 CARDS
041	REJECT-FED. DATA MISSING
042	REJECT-CENT. NOT EQUAL FAHR.
043	REJECT-ANALYSIS METHOD REQD.
044	REJECT-CONFLICTING VALUES

101	WARNING-CHECK ELEMENT VALUE
102	WARNING-ELEMENT EXCEEDS MAX
103	WARNING-ELEMENT BELOW MIN
104	WARNING-NOT IN CODE TABLE
105	WARNING-NOT IN DATA ELE TBL
106	WARNING-DEFAULT VALUE USED
107	WARNING-NOT NUMERIC
108	WARNING-VALUE TOO LOW

401	INVALID-NOT NUMERIC
402	INVALID-NOT IN CODE TABLE
403	INVALID-NOT A VALID DATE
404	INVALID-ELEMENT EXCEEDS MAX
405	INVALID-ELEMENT BELOW MIN
406	INVALID-ELEMENT MISSING
407	INVALID-VALUE UNACCEPTABLE
408	INVALID-NOT ALPHABETIC
409	INVALID-NOT ON PUB WATER TBL
410	INVALID-ASSOC VALUE MISSING
411	INVALID-CANNOT ACCESS LBT
412	INVALID-NO MATCHING ENTRY
413	INVALID-TOO MANY ENTRIES
414	INVALID-DUPLICATE ENTRY
415	INVALID-CONFLICTING VALUES

Recommended User Action

MESSAGE: REJECT - INVALID RECORD-ID ERROR CODE: 001
USER ACTION: the record ID does not correspond to the requirements set forth for the file. Refer to the DED for requirements and re-enter transaction.

MESSAGE: REJECT- RECORD ALREADY EXISTS ERROR CODE: 002
USER ACTION: there is already a record on file with the same ID. Check to see if there was an error in keying the transaction. If not, enter a unique record ID and re-enter the transaction.

MESSAGE: REJECT - NO MATCHING RECORD-ID ERROR CODE: 003
USER ACTION: this should only occur for a change or delete transaction. There is no record on file which corresponds to the record ID that was entered. Correct the ID number and re-enter the transaction.

MESSAGE: REJECT - RECORD IS INCOMPLETE ERROR CODE: 004
USER ACTION: the record does not contain all the data elements required for MSIS processing. Refer to Section XI of this manual to determine requirements and re-enter the transaction.

MESSAGE: REJECT - CONTAM ID INVALID ERROR CODE: 005
USER ACTION: the record contains a contaminant ID that is not on the MSIS CVT. If it is an error, correct it and re-enter the transaction. If it is in fact a new contaminant ID, the MSIS CVT must be recreated before the transaction will be accepted (use program MSIS030).

MESSAGE: REJECT - STATE VALUE TOO LOW ERROR CODE: 006
USER ACTION: the value for a state regulation entry is lower than that which is required by law. Correct the entry and re-enter the transaction.

MESSAGE: REJECT - STATE VALUE TOO HIGH ERROR CODE: 007
USER ACTION: the value for a state regulation entry is higher than that which is required by law. Correct the entry and re-enter the transaction.

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MESSAGE: REJECT - FED. RECORD MISSING ERROR CODE: 008
USER ACTION: for each state regulation there must be a corresponding federal regulation. Code the federal regulation and include it with the transactions.

MESSAGE: REJECT - REC. HAS INVALID DATA ERROR CODE: 009
USER ACTION: the record contains invalid data. Check the Data Element Dictionary (DED), re-code the transaction and re-enter it.

MESSAGE: REJECT - NOT NUMERIC ERROR CODE: 010
USER ACTION: a field that must be numeric is not numeric and has caused the transaction to reject. Correct the field and re-enter the transaction.

MESSAGE: REJECT - VALUE UNACCEPTABLE ERROR CODE: 011
USER ACTION: according to the criteria in the Data Element Dictionary (DED) the value entered is not acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - VALUE TOO HIGH ERROR CODE: 012
USER ACTION: according to the criteria in the Data Element Dictionary (DED), the value entered was higher than acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - VALUE TOO LOW ERROR CODE: 013
USER ACTION: according to the criteria in the Data Element Dictionary (DED), the value entered was lower than acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - NOT IN CODE TABLE ERROR CODE: 014
USER ACTION: according to the respective Code Value Table (CVT), the value entered was not in the table. Correct the value and re-enter the transaction. If it is a new value, the CVT must be recreated using MSIS030.

MESSAGE: REJECT - PWS ID INVALID ERROR CODE: 015
USER ACTION: the PWS does not exist. Correct and re-enter the transaction.

MESSAGE: REJECT - LAB NOT AUTHORIZED ERROR CODE: 016
USER ACTION: either the lab does not appear on the LBT or it does appear but is not authorized to do the specified type of analysis. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID TRANSACT CODE ERROR CODE: 017
USER ACTION: the transaction code is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - REQUIRED DATA MISSING ERROR CODE: 018
USER ACTION: data which is required for MSIS processing was not entered in this transaction. Refer to Section XI of this manual to determine requirements and re-enter the transaction.

MESSAGE: REJECT - NO MATCHING MILESTONE ERROR CODE: 019
USER ACTION: there is no milestone to match this transaction. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID DELETE CODE ERROR CODE: 020
USER ACTION: the delete code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID CREATE CODE ERROR CODE: 021
USER ACTION: the create code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY VIOLATIONS ERROR CODE: 022
USER ACTION: a maximum of ten specific violations is maintained for a single Enforcement Actions record. Correct and re-enter transaction if in error.

MESSAGE: REJECT - NO MATCHING VIOLATION ERROR CODE: 023
USER ACTION: there is no matching violation for this transaction. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID REQUEST CODE ERROR CODE: 024
USER ACTION: the request code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY MILESTONES ERROR CODE: 025
USER ACTION: a maximum of ten milestones is maintained for a single variance or exemption record. Correct and re-enter the transaction if in error.

MESSAGE: REJECT - INVALID OCCURRENCE ERROR CODE: 026
USER ACTION: there are a specific number of occurrences allowed for this field on this transaction. Consult the input form for this field to ascertain the maximum allowed. Correct and re-enter the transaction.

MESSAGE: REJECT - METHOD NOT ON TABLE ERROR CODE: 027
USER ACTION: the analysis method specified on the transaction is not on the LBT or is not authorized for the laboratory specified. Correct and re-enter the transaction.

MESSAGE: REJECT - DUPLICATE MILESTONE ERROR CODE: 028
USER ACTION: there is already a milestone on file with the same number and target date. Correct and re-enter the transaction if it is not actually a duplicate.

MESSAGE: REJECT - ILLEGAL DELETION ERROR CODE: 029
USER ACTION: a deletion transaction is invalid for this record on the file. Do not re-enter transaction.

MESSAGE: REJECT - ASSOC VALUE MISSING ERROR CODE: 030
USER ACTION: there is a field which has been entered which requires another field to be entered at the same time. The associated field is invalid or missing. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY CONTAMINANTS ERROR CODE: 031
USER ACTION: there is a specific number of contaminants allowed for certain files. Consult the Data Element Dictionary (DED) for this specific field to ascertain the maximum allowed. Correct and re-enter the transaction if possible.

MESSAGE: REJECT - NO MATCHING CONTAMINANT ERROR CODE: 032
USER ACTION: the contaminant number and target date in the transaction does not match the ones on file. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID DATE ERROR CODE: 033
USER ACTION: the date entered is invalid; the month is not in the range 01 to 12, the day is not in a range valid to its month, or the year is not numeric. Correct and re-enter the transaction.

MESSAGE: REJECT - DUPLICATE LAB-ID ERROR CODE: 034
USER ACTION: there is already a record on the lab table identical to this transaction. Discard the transaction.

MESSAGE: REJECT - REC. ALREADY ENTERED ERROR CODE: 035
USER ACTION: there is already a record on the respective file identical to this transaction. Discard the transaction.

MESSAGE: REJECT - DUPLICATE L2 CARD ERROR CODE: 036
USER ACTION: an L2 card for this lab and this contaminant group already entered. Examine both records and discard the erroneous one.

MESSAGE: REJECT - TOO MANY L1 CARDS ERROR CODE: 037
USER ACTION: an L1 card for this lab has already been entered. Examine both records and discard the erroneous one.

MESSAGE: REJECT - NO MATCHING L1 CARD ERROR CODE: 038
USER ACTION: L2 cards have been entered with no corresponding L1 card for this lab. Code the L1 card and re-enter all transactions.

MESSAGE: REJECT - NO MATCHING L2 CARD ERROR CODE: 039
USER ACTION: L1 card has been entered with no corresponding L2 cards for this lab. Code the appropriate L2 card(s) and re-enter all transactions.

MESSAGE: REJECT - TOO MANY L2 CARDS ERROR CODE: 040
USER ACTION: the capacity of the program for L2 cards has been exceeded. Either contact PISG or eliminate some L2 cards.

MESSAGE: REJECT - FED. DATA MISSING ERROR CODE: 041
USER ACTION: Federal records have been entered with required data missing. Correct and re-enter.

MESSAGE: REJECT - CENT. NOT EQUAL FAHR. ERROR CODE: 042
USER ACTION: the field with the Centigrade temperature is not equal to the corresponding Fahrenheit temperature. Re-calculate and correct.

MESSAGE: REJECT - ANALYSIS METHOD REQD ERROR CODE: 043
USER ACTION: A type "01" or type "02" violation was entered with a blank Analysis Method. Change the violation type or enter an analysis method.

MESSAGE: REJECT - CONFLICTING VALUES ERROR CODE: 044
USER ACTION: The data in two fields (either both are on the update transactions or one on the transaction and one on the file) are not in agreement. Check the Data Element Dictionary for specific edit criteria.

MESSAGE: WARNING - CHECK ELEMENT VALUE ERROR CODE: 101
USER ACTION: The field was accepted for update but may be invalid. Correct and re-enter if necessary.

MESSAGE: WARNING - ELEMENT EXCEEDS MAX ERROR CODE: 102
USER ACTION: The data element exceeds an established maximum value but has been accepted for update. Correct and re-enter if necessary.

MESSAGE: WARNING - ELEMENT BELOW MIN ERROR CODE: 103
USER ACTION: The data element is below an established minimum value, but has been accepted for update. Correct and re-enter if necessary.

MESSAGE: WARNING - NOT IN CODE TABLE ERROR CODE: 104
USER ACTION: The data element in question is not on the Code Value Table (CVT), but has been accepted for update. Correct and re-enter if necessary.

MESSAGE: WARNING - NOT IN DATA ELE TBL ERROR CODE: 105
USER ACTION: The data element is not on the DET but has been accepted for update on the history file. Correct and re-enter if necessary.

MESSAGE: WARNING - DEFAULT VALUE USED ERROR CODE: 106
USER ACTION: Nothing was entered for this field so the default value has been accepted. See the DED for an explanation of default values. Correct and re-enter if necessary.

MESSAGE: WARNING - NOT NUMERIC ERROR CODE: 107
USER ACTION: Some alphabetic data have been entered into a field which normally contains numeric data. These data have been accepted for update. Correct and re-enter if necessary.

MESSAGE: WARNING - VALUE TOO LOW ERROR CODE: 108
USER ACTION: The data for this field contain a value which is not considered to be in the normal value range. These data have been accepted, however. Correct and re-enter only if necessary.

MESSAGE: INVALID - NOT NUMERIC ERROR CODE: 401
USER ACTION: the value entered was not numeric; however, the rest of the transaction not in error was accepted. Correct and reenter the portion of the transaction which was in error.

MESSAGE: INVALID - NOT IN CODE TABLE ERROR CODE: 402
USER ACTION: the data element is not on the Code Value Table (CVT) for the respective file; however, the rest of the transaction not in error was accepted. Correct and reenter the portion of the transaction which was in error.

MESSAGE: INVALID - NOT A VALID DATE ERROR CODE: 403
USER ACTION: the date entered is invalid; however, the rest of the transaction not in error was accepted. The month is not in the range 01 to 12, the day is not in a range valid to its month, or the year is not numeric. Correct and reenter this portion of the transaction.

MESSAGE: INVALID - ELEMENT EXCEEDS MAX ERROR CODE: 404
USER ACTION: The data element exceeds an established maximum value; however, the rest of the transaction not in error was accepted. Correct and reenter this portion of the transaction. If this is a new maximum value, the program will have to be changed.

MESSAGE: INVALID - ELEMENT BELOW MIN ERROR CODE: 405
USER ACTION: the data element is below an established minimum value; however, the rest of the transaction not in error was accepted. Correct and reenter the transaction. If this is a new minimum value, the program will have to be changed.

MESSAGE: INVALID - ELEMENT MISSING ERROR CODE: 406
USER ACTION: Of two or more values that should be entered at once, the major field is missing, even though the others may be present. The rest of the transaction not in error was accepted. Correct and re-enter the transaction.

MESSAGE: INVALID - VALUE UNACCEPTABLE ERROR CODE: 407
USER ACTION: The value entered was not acceptable according to current edit criteria; however, the rest of the transaction not in error has been accepted. Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - NOT ALPHABETIC ERROR CODE: 408
USER ACTION: The data element must be alphabetic; however, the rest of the transaction not in error was accepted. Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - NOT ON PUB WATER TBL ERROR CODE: 409
USER ACTION PWS-ID was not on the Public Water Table (PWT). Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - ASSOC VALUE MISSING ERROR CODE: 410
USER ACTION: There is a field which has been entered which requires another field to be entered at the same time. The associated field is missing, however, the rest of the transaction not in error was accepted. Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - CANNOT ACCESS LBT ERROR CODE: 411
USER ACTION: An uncorrectable I/O error has occurred. Your LBT cannot be read. Recreate your LBT before restarting this job.

MESSAGE: INVALID - NO MATCHING ENTRY ERROR CODE: 412
USER ACTION: Data were entered on the deletion form which do not exist on the file. Check which data were intended for deletion.

MESSAGE: INVALID - TOO MANY ENTRIES ERROR CODE: 413
USER ACTION: This field is limited to a predetermined number of data entries. Check which data should be omitted.

MESSAGE: INVALID - DUPLICATE ENTRY ERROR CODE: 414
USER ACTION: These data are already on the file. No action is necessary.

MESSAGE: INVALID - CONFLICTING VALUES ERROR CODE: 415
USER ACTION: The data in two fields (either both are on the update transactions or one on the transaction and one on the file) are not in agreement. Check the Data Element Dictionary for specific edit criteria.

VIII. Standard Error Messages for Processing Options and Direct Access Tables

Any program which uses processing options records may produce any of the following messages:

A. Standard Error Messages & Remedial Actions for Processing Options Records

MESSAGE: ERROR - TWO PROCESSING OPTIONS RECORDS SUPPLIED
REMEDIAL ACTION: Return both records to data entry and re-enter the Processing Options record that is correct to rerun the job.

MESSAGE: ERROR - NO PROCESSING OPTION RECORDS WERE PROVIDED
REMEDIAL ACTION: Obtain Processing Options from data entry and rerun the job.

MESSAGE: ERROR - INVALID PROCESSING OPTIONS ID
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry. Obtain new options and rerun the job.

MESSAGE: ERROR - INVALID DATE IN PROCESSING OPTIONS RECORD
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry. Obtain new options and rerun the job.

B. Standard Error Messages & Remedial Actions for SORT Records

MESSAGE: ERROR - MAXIMUM SORT-KEY SIZE HAS BEEN EXCEEDED
REMEDIAL ACTION: return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT SEQUENCE FIELD NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - TWO SORT FIELDS HAVE THE SAME SEQUENCE NUM
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT SEQUENCE NUMBER GREATER THAN MAXIMUM
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT OPTION MNEMONIC-NAME IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT MODE IS NOT ASCENDING OR DESCENDING
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - NONCONSECUTIVE SORT SEQUENCE VALUES
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

C. Standard Error Messages & Remedial Actions for SEL1 & SEL2 Records

MESSAGE: ERROR - INVALID FILE-ID IN SEL1 RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - TWO SEL1 RECORDS HAVE THE SAME LOGIC ID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - MNEMONIC NAME IN SEL1 RECORD IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 VALUE TOO LONG FOR SPECIFIED MNEMONIC
REMEDIAL ACTION: check for keypunch error, if not return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - NO SEL1 OPTION RECORD WAS PROVIDED
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - LOGIC ID NOT 1 THRU 35 IN SEL1 RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 DATE-FIELD VALUE IS NOT A VALID DATE
REMEDIAL ACTION: check for valid six character date, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 CATALOGUE-NUMBER VALUE NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Probable program error.

MESSAGE: ERROR - SEL2 OPERAND HAS NO MATCHING SEL1 RECORD
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - NO SEL2 OPTION RECORD WAS PROVIDED
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - MORE THAN 35 SEL2 RECORDS WERE PROVIDED
REMEDIAL ACTION: Return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - SEL2 RECORD HAS INVALID RELATIONAL SYMBOL
REMEDIAL ACTION: Check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

D. Standard Error Messages and Remedial Actions for Direct Access Tables (PWT and LBT)

1. These messages may appear from any program which accesses the Public Water Table (PWT).

MESSAGE: ERROR - RELATIVE RECORD XXXXXX NOT ON PWT-FILE
REMEDIAL ACTION: Check the input against the Public Water Table (PWT) for valid PWS IDs.

This message occurs when trying to access a record which is not contained on the PWT. Verify correct input and/or a correct PWT and re-submit.

MESSAGE: I/O ERROR ON TRACK 99999 RELATIVE REC XXXXXX OF PWT
REMEDIAL ACTION: Notify programmer.

2. These messages may appear from any program which accesses the Laboratory Table (LBT).

MESSAGE: ERROR - RELATIVE RECORD XXXXXX NOT ON LBT-FILE
REMEDIAL ACTION: Check the input against the Laboratory Table (LBT) for valid lab IDs.

This message occurs when trying to access a record which is not contained on the LBT. Verify correct input and/or a correct LBT and re-submit.

MESSAGE: I/O ERROR ON TRACK 99999 RELATIVE REC XXXXXX OF LBT
REMEDIAL ACTION: Notify programmer.

IX. Subsystem Descriptions

A. Public Water System Inventory Subsystem (PWSI)

1. General Description

The Public Water System Inventory Subsystem (PWSI) is central to and a mandatory subsystem of the Model State Information System (MSIS). This subsystem maintains descriptive data about Public Water Systems (PWS's) on a Public Water File (PWF) which is also used by other subsystems. The principal function of the PWSI Subsystem is to create and maintain this file and to display its contents upon request.

The PWF is used in the following subsystems:

- Water Quality Compliance Subsystem (WAQC) uses the PWF to identify state defined regulation criteria for each specific PWS.

- Federal Reporting Subsystem (FEDF) uses the PWF to report on the individual PWS's which were modified in a specific reporting period.

- Sanitary Survey Subsystem (SRVY) uses the PWF to selectively weigh and list PWS's for survey purposes according to specific criteria.

In addition, some basic descriptive data is maintained in a direct access file, the Public Water Table (PWT), that is used as a verification aid by the subsystems: Enforcement Actions Subsystem, Variances and Exemptions Subsystem, and Operator and Mailing Subsystem.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: PWSI.101
DESCRIPTION: This PROC option contains only the date which is to be printed on the reports created by program modules PWSI080 and PWSI130.

-Code the two-digit month under the "M", and two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: PWSI.102
DESCRIPTION: This document is the original input form used to create the National Public Water System Inventory File. It is not used by MSIS other than as a reference to the file used at the time of conversion.

EXHIBIT NO: PWSI.103
DESCRIPTION: Of the two dates pictured, the first, columns 5 thru 10, is used only as a date that will appear on the report produced by PWSI090. The second is used as a comparison date; any history record previous to the date entered here will be purged.

-Both dates are in the same format; code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Column 20 is used to determine whether or not the report of purged records is to be printed. The instructions are self-explanatory.

EXHIBIT NO: PWSI.105
DESCRIPTION: This is a RESTART option for the production of the turnaround document.

-The Restart Number is the page number you wish to begin re-printing the documents.

EXHIBIT NO: PWSI.106
DESCRIPTION: This PROC option contains a date which is to be printed on the report created by PWSI070.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction or only those fields which are in error should be printed on the error report. The instructions are self-explanatory.

-The Public History Report Option is used to determine whether the user would like to have only the new history file records printed, all the history file records printed, or none of the history file printed. Here too, the instructions are self-explanatory.

EXHIBIT NO: PWSI.107
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form is used with both PWSI020 and PWSI080 program modules.

EXHIBIT NO: PWSI.108
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form is used with both PWSI020 and PWSI080 program modules.

EXHIBIT NO: PWSI.111
DESCRIPTION: This PROC option is used with the PWSI010 Data Entry and Update Module. The date is used for the report heading as well as the last update date which is converted to Julian format and stored in the PWF record.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

-The Report Options codes are either a "1", "2", or "3". The options for a new PWS Record Report can be any of these option codes; the user has the option not to produce a report. A report of Incomplete PWS Records must be produced and therefore allows the pre-printed report or the Comprehensive Report only. Similarly for Status Requests, the report must be produced one of the two ways. However, with Unsuccessful Update Records, the user has the option, again, of not producing the report.

-PROC options for module PWSI060 are generated from this PROC to precede the records created for the various Report Options herein. It is therefore necessary to carefully code this PROC to ensure that the intentions of the user will be met.

EXHIBIT NO: PWSI.112

DESCRIPTION: This PROC option is used with program module PWSI120, National Conversion. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The State Postal Code is the two character U.S. Postal Service abbreviation of the state name that the user wishes to convert to NSIS format at the time of the run.

EXHIBIT NO: PWSI.113

DESCRIPTION: This PROC option is used with program module PWSI020, PWF Selection. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Of the four Report Options, at least one must be coded "Y" or the PROC will be rejected by the program. Any combination or all may be coded "Y" at one time. The instructions are self-explanatory.

EXHIBIT NO: PWSI.114
DESCRIPTION: This form is used for Status Requests and Deletion transactions entered into program module PWSI010, Data Entry and Update.

-The PWS-ID is the seven digit number of the PWS that the user wishes to have deleted or to have a Status Request made.

-The Card Code is coded as either a "98" for a Status Request, or a "99" for a Deletion.

EXHIBIT NO: PWSI.115
DESCRIPTION: This form is used for PWS ID Conversion Transactions entered into program module PWSI125.

-The OLD PWS ID is a seven digit number converted to the NEW PWS ID which is a state assigned field defined by the user.

-A non-numeric or zero NEW PWS ID will cause the transaction to be rejected.

EXHIBIT NO: PWSI.116
DESCRIPTION: This PROC option contains the date which is to be printed on the report created by program module PWSI125.

-The key option determines whether matching is to be done by the original PWS ID or National Inventory File Key.

EXHIBIT NO: PWSI.117
DESCRIPTION: This PROC option contains the date which is to be printed on the report created by program modules PWSI150 and PWSI160.

-The number of labels option indicates the number of labels to be printed.

EXHIBIT NO: PWSI.131
DESCRIPTION: This form is used to record turbidity, Nitrate and Coliform monitoring strategies for non-community PWS's on the PWF. When this form is used to enter non-community strategies, it must also be used to re-input an alternate Iodine 131 monitoring frequency, if one exists.

For each of the applicable contaminants, enter the date of the non-community plan submitted to EPA, the monitoring frequency, the number of samples to be taken during that period and the start and end dates of the strategy. For Iodine 131, enter only the alternate monitoring frequency if one exists.

Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

```
        PWSI030
                                                   1 OF 1
   PRODUCE CONDENSED REPORT                        11/16/76
               SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT PWSI.300


   PWSI030                                                  MODEL STATE INFORMATION SYSTEM
                                                        PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
   DATE XX/XX/XX
                                                                  CONDENSED REPORT
                                                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①                                       PAGE ZZZZ9
   PWS-ID  REGION DISTRICT TYPE      MAILING NAME/ADDRESS
                                                                    PLANT/OWNER ADDRESS          PLANT LOCATION       OWNER POPULATION
   XXXXXXX   XX     XX     X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                         TYPE   SERVED
                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX CITY: XXXXXXXXXXXXXXX    X   XXXXXXXXX
                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX COUNTY: XX
                               XX XXXXX                        XX XXXXX
     1       2      3      4
                                          5                               6                     7      8         9       10


          ① TYPE OF PWF FILE BEING REPORTED
```

EXHIBIT NO: PWSI.300 PAGE 1 OF 2

PROGRAM NO: PWSI030

TITLE: Condensed Report

FIELD NO: 1 DATA ELEMENT NAME: PWF-ID
CATALOGUE NO: 145 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PWF-STATE-REGION
CATALOGUE NO: 200 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 3 DATA ELEMENT NAME: PWF-STATE-DISTRICT
CATALOGUE NO: 201 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 4 DATA ELEMENT NAME: PWF-PLANT-TYPE
CATALOGUE NO: 182 DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-MAILING-NAME
CATALOGUE NO: 151 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-MAILING-STREET
CATALOGUE NO: 152 DESCRIPTION: First line of the mailing address of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: Second line of the mailing address of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
CATALOGUE NO: 155 DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address of the PWS.

EXHIBIT NO: PWSI.300 PAGE 2 OF 2

PROGRAM NO: PWSI030

TITLE: Condensed Report

FIELD NO: 6 CATALOGUE NO: 146	DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME DESCRIPTION: The official name of the PWS.
FIELD NO: 6 CATALOGUE NO: 147	DATA ELEMENT NAME: PWF-PLANT-STREET DESCRIPTION: The first line of the owner address of the PWS.
FIELD NO: 6 CATALOGUE NO: 148	DATA ELEMENT NAME: PWF-PLANT-CITY DESCRIPTION: The second line of the owner address of the PWS.
FIELD NO: 6 CATALOGUE NO: 149	DATA ELEMENT NAME: PWF-PLANT-STATE DESCRIPTION: The two character U.S. Postal Service abbreviation of the owner address of the PWS.
FIELD NO: 6 CATALOGUE NO: 150	DATA ELEMENT NAME: PWF-PLANT-ZIP-CODE DESCRIPTION: The U.S. Postal Service Zip Code of the owner address.
FIELD NO: 7 CATALOGUE NO: 159	DATA ELEMENT NAME: PWF-PLANT-COUNTY-CODE DESCRIPTION: The three digit county code as listed by STORET.
FIELD NO: 8 CATALOGUE NO: 158	DATA ELEMENT NAME: PWF-PLANT-AREA-CITY-NAME DESCRIPTION: Name of the city which is serviced by the PWS.
FIELD NO: 9 CATALOGUE NO: 237	DATA ELEMENT NAME: PWF-OWNER-TYPE DESCRIPTION: Code describing the type of a PWS owner.
FIELD NO: 10 CATALOGUE NO: 183	DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED DESCRIPTION: Total population obtaining water from the PWS.

```
                PWS1050                          1 OF 1
                                                 11/19/76
 STATE DISCRETIONARY DATA REPORT MODULE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT PWS1.301


                                                   MODEL STATE INFORMATION SYSTEM
PWS1050                                        PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                               PUBLIC WATER SYSTEMS - STATE DISCRETIONARY DATA                         PAGE ZZZZ9

                                                  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①

REGN DIST   ID            NAME          ------------------------B A C T E R I O L O G I C A L-------------------    ---TURBIDITY---
                                                                                  MIN NO  NCOM   MCL HALT    %
 XX   XX  XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  BACTI MONTHLY  NO OF   SEASON    DAILY  SAMPLE  CHECK   CHLORINE       TURBIDITY
 1    2     3              4                       FLG  MONITOR SAMPLES START END CHECKS  FREQ   SAMPLE  SAMPLES      FLAG    UNITS

                                                    X       X     XXX   XX/XX XX/XX X     XXX      X        XX         X       X.X
                                                    5       6      7     8       9   10             11  12   13         14       15
-----------------CHEMICALS------------------     ---------------------------------RADIOACTIVE-------------------------------------------
  TRIHALOMETHANES
TOT NUM NUMBER                           INORGANIC
  OF      OF   SAMP     ORGANIC       AIR NITRATE   RADIOACTIVE  BETA FREQ  NUCLEAR    MONITOR      MONITOR     NUM SAMPLES  GROUND WATER
SAMPLES PLANTS FREQ  BEGIN   END     TEMP   FREQ    FLG MONITOR   MONTHS      FAC    GROSS ALPHA  RADIUM MTHS    PER  YR       MONITOR

 XXXX    XXX    X    XXXXX XXXXX XXXX    XXXX        X     X         XX       X  X        XX           XX            X             X

 16      17    38     18    19    20      21        22    23         24      25 26        27           28            29            30
LAB DATA:         ID        CAPTIVE
                                                                                FACILITY          CONTAMINANT
                 XXXXX         X                                                CONTAMIN ID        FREQUENCY
                 XXXXX         X
              31 XXXXX      32 X
                 XXXXX         X                                                   XXXX               XX
                 XXXXX         X                                                   XXXX               XX
                                                                                   XXXX               XX
VARIANCE OR   CONTAMINANT  MODIFIED   ALT MONITOR                                  XXXX               XX
 EXEMPTION:       ID          MCL         FREQ                                     XXXX               XX
                                                                                   XXXX               XX
                 XXXXX  XXXXXXXXXXXXXX  XXX                                        XXXX               XX
                 XXXXX  XXXXXXXXXXXXXX  XXX                                        XXXX               XX
                 XXXXX  XXXXXXXXXXXXXX  XXX                                        XXXX               XX
                 XXXXX  XXXXXXXXXXXXXX  XXX                                        XXXX               XX
                  33         34         35                                          36                 37
                ①  SUBHEADING TO THE REPORT - NEW PWS RECORDS
                                              INCOMPLETE PWS RECORDS
                                              PWS STATUS RECORDS
                                              SELECTION EXTRACT FILE
                                              RECORDS UNSUCCESSFULLY UPDATED
```

EXHIBIT NO: PWSI.301 PAGE 1 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 1 DATA ELEMENT NAME: PWF-STATE-REGION
CATALOGUE NO: 200 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 2 DATA ELEMENT NAME: PWF-STATE-DISTRICT
CATALOGUE NO: 201 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 3 DATA ELEMENT NAME: PWF-ID
CATALOGUE NO: 145 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 4 DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
CATALOGUE NO: 146 DESCRIPTION: The official name of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-STATE-BACTERIOLOGICAL-FLG
CATALOGUE NO: 202 DESCRIPTION: A flag indicating whether or not a PWS reports Bacteriological monitoring.

FIELD NO: 6 DATA ELEMENT NAME: PWF-STATE-MONTHLY-MONITORING
CATALOGUE NO: 203 DESCRIPTION: A flag indicating whether or not a PWS reports Bacteriological monitoring on a monthly basis.

FIELD NO: 7 DATA ELEMENT NAME: PWF-STATE-NO-OF-SAMPLES
CATALOGUE NO: 204 DESCRIPTION: The number of samples per quarter that a small community PWS may perform for bacteria in lieu of monthly monitoring.

EXHIBIT NO: PWSI.301 PAGE 2 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 8 DATA ELEMENT NAME: PWF-STATE-SEASON-BEGIN
CATALOGUE NO: 205 DESCRIPTION: Beginning date for Bacteriological monitoring at a non-community PWS which is operating seasonally.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-SEASON-END
CATALOGUE NO: 206 DESCRIPTION: Ending date for Bacteriological monitoring at a non-community PWS which is operating seasonally.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-MIN-NO-DAILY-CHECKS
CATALOGUE NO: 207 DESCRIPTION: Minimum number of consecutive daily check samples required for Bacteriological Analysis.

FIELD NO: 11 DATA ELEMENT NAME: PWF-STATE-NCOM-SAMPLE-FREQ
CATALOGUE NO: 208 DESCRIPTION: Alternate sampling frequency in days for Bacteriological Analysis.

FIELD NO: 12 DATA ELEMENT NAME: PWF-STATE-MCL-HALT-CHECK-SAMP
CATALOGUE NO: 209 DESCRIPTION: Maximum contaminant level necessary to halt check sampling.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-CHLORINE
CATALOGUE NO: 210 DESCRIPTION: Percent of samples for Bacteriological Analysis that may be replaced by Chlorine Residual sampling.

FIELD NO: 14 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-FLAG
CATALOGUE NO: 211 DESCRIPTION: A flag indicating whether or not a PWS reports Turbidity monitoring.

EXHIBIT NO: PWSI.301 PAGE 3 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 15 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-UNITS
CATALOGUE NO: 212 DESCRIPTION: The MCL set by the state for Turbidity monitoring.

FIELD NO: 16 DATA ELEMENT NAME: PWF-STATE-TOTAL-TTHM-SAMPLES
CATALOGUE NO: 738 DESCRIPTION: The total number of trihalomethane samples to be taken by a PWS during a compliance period, if the number to be taken is more or less than the number required by the regulation.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-NUMBER-OF-PLANTS
CATALOGUE NO: 739 DESCRIPTION: The number of treatment plants operated by a PWS.

FIELD NO: 18 DATA ELEMENT NAME: PWF-STATE-ORGANIC-BEGIN-PERIOD
CATALOGUE NO: 215 DESCRIPTION: The beginning date when sampling for organic chemicals is to be done.

FIELD NO: 19 DATA ELEMENT NAME: PWF-STATE-ORGANIC-END-PERIOD
CATALOGUE NO: 216 DESCRIPTION: The ending date when sampling for organic chemicals is to be done.

FIELD NO: 20 DATA ELEMENT NAME: PWF-AIR-TEMPERATURE
CATALOGUE NO: 217 DESCRIPTION: The air temperature used for determining compliance with the MCL for fluoride.

FIELD NO: 21 DATA ELEMENT NAME: PWF-STATE-NITRATE-FREQUENCY
CATALOGUE NO: 218 DESCRIPTION: Frequency in days for the monitoring of nitrate for a non-community PWS.

FIELD NO: 22 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-FLAG
CATALOGUE NO: 219 DESCRIPTION: A flag indicating whether or not a PWS does Radiological monitoring.

EXHIBIT NO: PWSI.301 PAGE 4 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 23 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-MONITORING
CATALOGUE NO: 220 DESCRIPTION: A flag indicating whether or not an analysis is an MCL.

FIELD NO: 24 DATA ELEMENT NAME: PWF-STATE-BETA-FREQ-MONTHS
CATALOGUE NO: 221 DESCRIPTION: The number of months required between Gross Beta monitoring.

FIELD NO: 25 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE1
CATALOGUE NO: 223 DESCRIPTION: The first of two possible nuclear facility types that may be involved with a PWS.

FIELD NO: 26 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE2
CATALOGUE NO: 702 DESCRIPTION: The second of two possible nuclear facility types that may be involved with a PWS.

FIELD NO: 27 DATA ELEMENT NAME: PWF-STATE-MONITOR-GROSS-ALPHA
CATALOGUE NO: 226 DESCRIPTION: The number of months required between monitoring Gross Alpha.

FIELD NO: 28 DATA ELEMENT NAME: PWF-STATE-MONITOR-RADIUM-MTHS
CATALOGUE NO: 227 DESCRIPTION: The number of months required between monitoring Radium.

FIELD NO: 29 DATA ELEMENT NAME: PWF-STATE-NUM-SAMPLES-PER-YR
CATALOGUE NO: 228 DESCRIPTION: Number of samples per year for Radiological sampling.

FIELD NO: 30 DATA ELEMENT NAME: PWF-STATE-GROUND-WATER-MONITOR
CATALOGUE NO: 229 DESCRIPTION: A flag indicating whether or not a PWS reports ground water monitoring.

EXHIBIT NO: PWSI.301 PAGE 5 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 31 DATA ELEMENT NAME: PWF-LAB-ID
CATALOGUE NO: 235 DESCRIPTION: A number identifying a certified laboratory.

FIELD NO: 32 DATA ELEMENT NAME: PWF-CAPTIVE-FLAG
CATALOGUE NO: 236 DESCRIPTION: A flag indicating whether or not the laboratory belongs to the PWS.

FIELD NO: 33 DATA ELEMENT NAME: PWF-VAEX-CONTAMINANT-ID
CATALOGUE NO: 238 DESCRIPTION: Four digit contaminant code for a variance or exemption.

FIELD NO: 34 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL
CATALOGUE NO: 239 DESCRIPTION: The MCL designated for the previous contaminant ID of a variance or exemption.

FIELD NO: 35 DATA ELEMENT NAME: PWF-VAEX-ALT-MONITOR-FREQ
CATALOGUE NO: 241 DESCRIPTION: Alternate monitoring frequency required for the previous contaminant ID.

FIELD NO: 36 DATA ELEMENT NAME: PWF-STATE-FAC-CONTAMINANT-ID
CATALOGUE NO: 224 DESCRIPTION: Four digit contaminant code for which analysis is done at the PWS.

FIELD NO: 37 DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-FREQ
CATALOGUE NO: 225 DESCRIPTION: The frequency in days between sampling for the previous contaminant ID.

FIELD NO: 38 DATA ELEMENT NAME: PWF-STATE-TTHM-FREQ
CATALOGUE NO: 740 DESCRIPTION: The frequency with which trihalomethane compliance is to be done, either quarterly or yearly.

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                PWS1040                     1 OF 1
                                            11/18/76
      PRODUCTION DATA REPORT MODULE
              SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
      EXHIBIT PWS1.302

                                                     MODEL STATE INFORMATION SYSTEM
PWS1040                                            PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                        PRODUCTION AND CAPACITY DATA                                         PAGE ZZZZ9

PWS-ID  REG/                                       POPULATION SERVICES METERS  AVERAGE    DESIGN    EMERGENCY   STORAGE    MAXIMUM
        DIST TYPE UNITS          PWS NAME            SERVED    NUMBER  NUMBER  PRODUCT   CAPACITY     POWER    CAPACITY  PRODUCTION

XXXXXXX XX/XX  X    X  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX
XXXXXXX XX/XX  X    X  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX
XXXXXXX XX/XX  X    X  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX

   1     2 3   4    5          6                          7        8       9       10        11         12         13         14
```

EXHIBIT NO: PWSI.302 PAGE 1 OF 2

PROGRAM NC: PWSI040

TITLE: Production and Capacity Data

FIELD NO: 1 CATALOGUE NO: 145	DATA ELEMENT NAME: PWF-ID DESCRIPTION: The number used to identify the Public Water System within the state.
FIELD NO: 2 CATALOGUE NO: 200	DATA ELEMENT NAME: PWF-STATE-REGION DESCRIPTION: A code identifying the administrative region of the state.
FIELD NO: 3 CATALOGUE NO: 201	DATA ELEMENT NAME: PWF-STATE-DISTRICT DESCRIPTION: A code identifying an administrative district within a region.
FIELD NO: 4 CATALOGUE NO: 182	DATA ELEMENT NAME: PWF-PLANT-TYPE DESCRIPTION: A flag indicating whether this PWS is a community or non-community PWS.
FIELD NO: 5 CATALOGUE NO: 232	DATA ELEMENT NAME: PWF-STATE-ENGLISH-METRIC-SYSTM DESCRIPTION: A flag to tell whether English or Metric System is being used in reporting.
FIELD NO: 6 CATALOGUE NO: 146	DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME DESCRIPTION: The official name of a PWS.
FIELD NO: 7 CATALOGUE NO: 183	DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED DESCRIPTION: Total population obtaining water from this PWS.
FIELD NO: 8 CATALOGUE NO: 184	DATA ELEMENT NAME: PWF-PLANT-SERVICES-NUMBER DESCRIPTION: The number of service connections, not counting consecutive water systems, which use water from this PWS.

EXHIBIT NO: PWSI.302 PAGE 2 OF 2

PROGRAM NO: PWSI040

TITLE: Production and Capacity Data

FIELD NO: 9
CATALOGUE NO: 185
DATA ELEMENT NAME: PWF-PLANT-METERS-NUMBER
DESCRIPTION: The number of service connections with water meters.

FIELD NO: 10
CATALOGUE NO: 186
DATA ELEMENT NAME: PWF-PLANT-AVERAGE-PRODUCTION
DESCRIPTION: Average annual production in gallons per day in the most recent year.

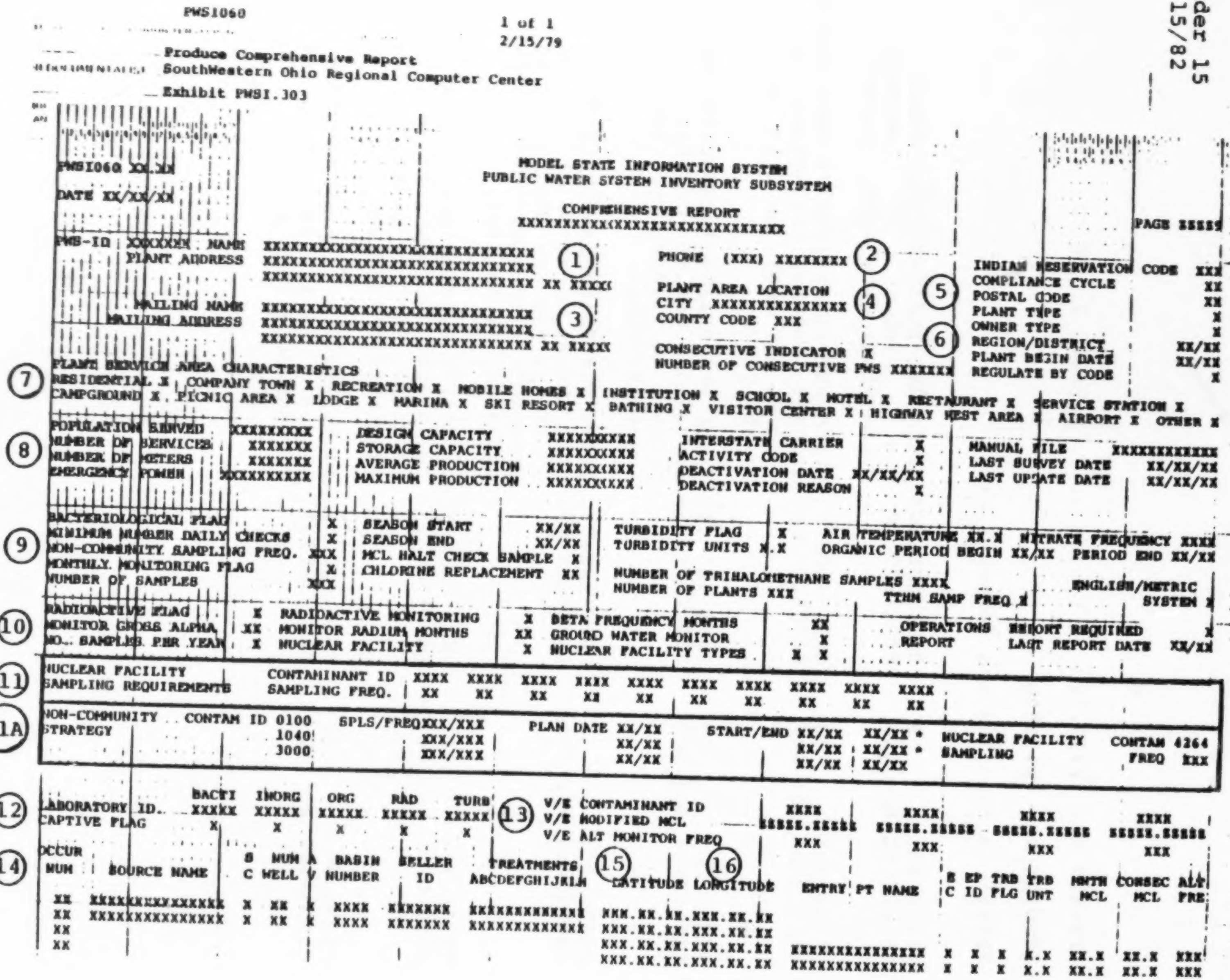
FIELD NO: 11
CATALOGUE NO: 187
DATA ELEMENT NAME: PWF-PLANT-DESIGN-CAPACITY
DESCRIPTION: Approved design capacity in gallons or liters per day of treatment plant.

FIELD NO: 12
CATALOGUE NO: 188
DATA ELEMENT NAME: PWF-PLANT-EMERGENCY-POWER
DESCRIPTION: The amount of water in gallons or liters per day that can be produced with power generation equipment of the PWS.

FIELD NO: 13
CATALOGUE NO: 189
DATA ELEMENT NAME: PWF-PLANT-STORAGE-CAPACITY
DESCRIPTION: The storage capacity in gallons or liters that is ready for the distribution system.

FIELD NO: 14
CATALOGUE NO: 190
DATA ELEMENT NAME: PWF-PLANT-MAX-PRODUCTION
DESCRIPTION: Maximum daily production in gallons or liters per day.

Binder 15
07/15/82



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PWS1060
                                                     1 of 1
                                                     2/15/79
                  Produce Comprehensive Report
                  SouthWestern Ohio Regional Computer Center
                  Exhibit PWSI.303

PWSI060 XX.XX                               MODEL STATE INFORMATION SYSTEM
                                         PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX
                                                 COMPREHENSIVE REPORT
                                          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                         PAGE 55559

PWS-ID  XXXXXXX  NAME  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   ①    PHONE  (XXX) XXXXXXXX ②    INDIAN RESERVATION CODE  XXX
           PLANT ADDRESS  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                   COMPLIANCE CYCLE          XX
                          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX  PLANT AREA LOCATION   ⑤  POSTAL CODE               XX
                                                                 CITY  XXXXXXXXXXXXXX ④   PLANT TYPE                 X
             MAILING NAME XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   ③    COUNTY CODE  XXX             OWNER TYPE                 X
          MAILING ADDRESS XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                ⑥  REGION/DISTRICT         XX/XX
                          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX  CONSECUTIVE INDICATOR  X    PLANT BEGIN DATE        XX/XX
PLANT SERVICE AREA CHARACTERISTICS                              NUMBER OF CONSECUTIVE PWS XXXXXXX  REGULATE BY CODE    X
⑦ RESIDENTIAL X  COMPANY TOWN X  RECREATION X  MOBILE HOMES X  INSTITUTION X  SCHOOL X  MOTEL X  RESTAURANT X  SERVICE STATION X
  CAMPGROUND X  PICNIC AREA X  LODGE X  MARINA X  SKI RESORT X  BATHING X  VISITOR CENTER X  HIGHWAY REST AREA X  AIRPORT X  OTHER X

  POPULATION SERVED   XXXXXXXXX   DESIGN CAPACITY      XXXXXXXXXX   INTERSTATE CARRIER        X   MANUAL FILE     XXXXXXXXXXXX
⑧ NUMBER OF SERVICES    XXXXXXX   STORAGE CAPACITY     XXXXXXXXXX   ACTIVITY CODE             X   LAST SURVEY DATE    XX/XX/XX
  NUMBER OF METERS      XXXXXXX   AVERAGE PRODUCTION   XXXXXXXXXX   DEACTIVATION DATE  XX/XX/XX   LAST UPDATE DATE    XX/XX/XX
  EMERGENCY POWER    XXXXXXXXXX   MAXIMUM PRODUCTION   XXXXXXXXXX   DEACTIVATION REASON       X

  BACTERIOLOGICAL FLAG              X   SEASON START          XX/XX   TURBIDITY FLAG    X    AIR TEMPERATURE XX.X  NITRATE FREQUENCY XXXX
⑨ MINIMUM NUMBER DAILY CHECKS       X   SEASON END            XX/XX   TURBIDITY UNITS X.X    ORGANIC PERIOD BEGIN XX/XX  PERIOD END XX/XX
  NON-COMMUNITY SAMPLING FREQ.    XXX   MCL HALT CHECK SAMPLE     X
  MONTHLY MONITORING FLAG           X   CHLORINE REPLACEMENT     XX   NUMBER OF TRIHALOMETHANE SAMPLES XXXX             ENGLISH/METRIC
  NUMBER OF SAMPLES               XXX                                 NUMBER OF PLANTS XXX       TTHM SAMP FREQ X              SYSTEM X

  RADIOACTIVE FLAG        X   RADIOACTIVE MONITORING     X   BETA FREQUENCY MONTHS      XX    OPERATIONS   REPORT REQUIRED      X
⑩ MONITOR GROSS ALPHA    XX   MONITOR RADIUM MONTHS     XX   GROUND WATER MONITOR        X    REPORT       LAST REPORT DATE XX/XX
  NO. SAMPLES PER YEAR    X   NUMBER FACILITY            X   NUCLEAR FACILITY TYPES    X X

⑪ NUCLEAR FACILITY          CONTAMINANT ID  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX
  SAMPLING REQUIREMENTS     SAMPLING FREQ.    XX    XX    XX    XX    XX    XX    XX    XX    XX    XX

(11A) NON-COMMUNITY   CONTAM ID 0100   SPLS/FREQ XXX/XXX   PLAN DATE XX/XX   START/END XX/XX   XX/XX *  NUCLEAR FACILITY   CONTAM 4264
  STRATEGY                   1040             XXX/XXX             XX/XX             XX/XX   XX/XX *  SAMPLING                FREQ  XXX
                             3000             XXX/XXX             XX/XX             XX/XX   XX/XX

                   BACTI  INORG   ORG    RAD    TURB       V/E CONTAMINANT ID        XXXX          XXXX          XXXX          XXXX
⑫ LABORATORY ID.  XXXXX  XXXXX  XXXXX  XXXXX  XXXXX  ⑬  V/E MODIFIED MCL      55555.55555   55555.55555   55555.55555   55555.55555
  CAPTIVE FLAG       X      X      X      X      X       V/E ALT MONITOR FREQ      XXX           XXX           XXX           XXX

  OCCUR                     S  NUM  A  BASIN   SELLER   TREATMENTS      ⑮         ⑯                          S  EP  TRB TRB  MNTH  CONSEC  ALT
⑭ NUM   SOURCE NAME         C  WELL V  NUMBER    ID     ABCDEFGHIJKLM   LATITUDE  LONGITUDE   ENTRY PT NAME   C  ID  FLG UNT   MCL    MCL   FRE

   XX   XXXXXXXXXXXXXXX     X   XX  X   XXXX  XXXXXXX   XXXXXXXXXXXXX  XXX.XX.XX.XXX.XX.XX
   XX   XXXXXXXXXXXXXXX     X   XX  X   XXXX  XXXXXXX   XXXXXXXXXXXXX  XXX.XX.XX.XXX.XX.XX
   XX                                                                  XXX.XX.XX.XXX.XX.XX  XXXXXXXXXXXXXXX  X   X   X  X.X  XX.X   XX.X   XXX
   XX                                                                  XXX.XX.XX.XXX.XX.XX  XXXXXXXXXXXXXXX  X   X   X  X.X  XX.X   XX.X   XXX
```

* Eleven or eleven-A will print on this report,* not both, depending upon the data that have been entered for a particular PWS.

EXHIBIT NO: PWSI.303 **PAGE** 1 **OF** 16

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 1 DATA ELEMENT NAME: PWF-ID
CATALOGUE NO: 145 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 1 DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
CATALOGUE NO: 146 DESCRIPTION: The name of the owner or the official plant name of a Public Water System (PWS).

FIELD NO: 1 DATA ELEMENT NAME: PWF-PLANT-STREET
CATALOGUE NO: 147 DESCRIPTION: The owner or plant street address.

FIELD NO: 1 DATA ELEMENT NAME: PWF-PLANT-CITY
CATALOGUE NO: 148 DESCRIPTION: The owner or plant city name.

FIELD NO: 1 DATA ELEMENT NAME: PWF-PLANT-STATE
CATALOGUE NO: 149 DESCRIPTION: The two character U.S. Postal Service abbreviation of the owner or plant address.

FIELD NO: 1 DATA ELEMENT NAME: PWF-PLANT-ZIP-CODE
CATALOGUE NO: 150 DESCRIPTION: The U.S. Postal Service Zip Code of the owner or plant address.

FIELD NO: 2 DATA ELEMENT NAME: PWF-MAILING-AREA-CODE
CATALOGUE NO: 156 DESCRIPTION: The area code of the telephone number to be used when communications are necessitated with the PWS.

FIELD NO: 2 DATA ELEMENT NAME: PWF-MAILING-PHONE-NUMBER
CATALOGUE NO: 157 DESCRIPTION: The telephone number to be used when communications are necessitated with the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-NAME
CATALOGUE NO: 151 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-STREET
CATALOGUE NO: 152 DESCRIPTION: The street name and number of the mailing address of the PWS.

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FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: The city name of the PWS mailing address.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address state.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
CATALOGUE NO: 155 DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address.

FIELD NO: 4 DATA ELEMENT NAME: PWF-PLANT-AREA-CITY-NAME
CATALOGUE NO: 158 DESCRIPTION: The name of the city or community serviced by the PWS.

FIELD NO: 4 DATA ELEMENT NAME: PWF-PLANT-AREA-COUNTY-CODE
CATALOGUE NO: 159 DESCRIPTION: The three digit county code as listed by STORET.

FIELD NO: 5 DATA ELEMENT NAME: PWF-STATE-REGION
CATALOGUE NO: 200 DESCRIPTION: A code identifying the administrative region of the state responsible for monitoring the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-INDIAN- RESERVATION
CATALOGUE NO: 160 DESCRIPTION: Code identifying the Indian Reservation which is being serviced by the PWS; Standard Code Book of the Indian Health Service.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-COMPLIANCE-CYCLE
CATALOGUE NO: 193 DESCRIPTION: The day of the month on which the compliance cycle begins.

FIELD NO: 5 DATA ELEMENT NAME: PWF-STATE-POSTAL-CODE
CATALOGUE NO: 198 DESCRIPTION: A two character code assigned to the state responsible for the PWS's surveillance.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-TYPE
CATALOGUE NO: 182 DESCRIPTION: A flag indicating whether the PWS is classified as community of non-community.

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FIELD NO: 5 DATA ELEMENT NAME: PWF-STATE-DISTRICT
CATALOGUE NO: 201 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: PWF-OWNER-TYPE
CATALOGUE NO: 237 DESCRIPTION: A code identifying the type of ownership pertaining to the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-BEGIN-DATE
CATALOGUE NO: 191 DESCRIPTION: The month and year that the PWS began operation.

FIELD NO: 5 DATA ELEMENT NAME: PWF-STATE-REGULATE-BY
CATALOGUE NO: 199 DESCRIPTION: A code identifying the type of regulations which apply to the PWS (federal, state, both, none).

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-CONSEC-INDICATOR
CATALOGUE NO: 701 DESCRIPTION: A flag indicating whether or not the PWS is a consecutive water system, and if so, whether the PWS is required to monitor its water.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-CONSECUTIVE-NUM-PWS
CATALOGUE NO: 180 DESCRIPTION: The number of consecutive water systems purchasing water from this PWS.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-RESIDENTIAL
CATALOGUE NO: 161 DESCRIPTION: A flag to tell whether or not the PWS serves a residential area.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-COMPANY-TOWN
CATALOGUE NO: 162 DESCRIPTION: A flag to tell whether or not the PWS serves a company or town.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-RECREATION
CATALOGUE NO: 163 DESCRIPTION: A flag to tell whether or not the PWS serves a recreation area.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-MOBILE-HOMES
CATALOGUE NO: 164 DESCRIPTION: A flag to tell whether or not the PWS serves a mobile home park.

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FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-INSTITUTION
CATALOGUE NO: 165 DESCRIPTION: A flag to tell whether or not the PWS serves a state institution (training center, prison, etc.).

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-SCHOOL
CATALOGUE NO: 166 DESCRIPTION: A flag to tell whether or not the PWS serves a school.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-MOTEL
CATALOGUE NO: 167 DESCRIPTION: A flag to tell whether or not the PWS serves a motel.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-RESTAURANT
CATALOGUE NO: 168 DESCRIPTION: A flag to tell whether or not the PWS serves a restaurant.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-SERVICE-STATION
CATALOGUE NO: 169 DESCRIPTION: A flag to tell whether or not the PWS serves a service station.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-CAMPGROUND
CATALOGUE NO: 170 DESCRIPTION: A flag to tell whether or not a PWS serves a campground area.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-PICNIC-AREA
CATALOGUE NO: 171 DESCRIPTION: A flag to tell whether or not a PWS serves a picnic area.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-LODGE
CATALOGUE NO: 172 DESCRIPTION: A flag to tell whether or not the PWS serves a lodge.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-MARINA
CATALOGUE NO: 173 DESCRIPTION: A flag to tell whether or not the PWS serves a marina.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-SKI-RESORT
CATALOGUE NO: 174 DESCRIPTION: A flag to tell whether or not the PWS serves a ski resort.

FIELD NO: 7 DATA ELEMENT NAME: PWP-PLANT-BATHING
CATALOGUE NO: 175 DESCRIPTION: A flag to tell whether or not the PWS serves a swimming pool or beach area.

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FIELD NO:	CATALOGUE NO:	DATA ELEMENT NAME:	DESCRIPTION:
7	176	PWF-PLANT-VISITOR-CENTER	A flag to tell whether or not the PWS serves a visitor center area.
7	177	PWF-PLANT-HWY-REST-AREA	A flag to tell whether or not a PWS serves a highway rest area.
7	178	PWF-PLANT-AIRPORT	A flag to tell whether or not a PWS serves an airport.
7	179	PWF-PLANT-OTHER-AREA	A flag to tell whether or not a PWS serves an area other than those previously mentioned.
8	183	PWF-PLANT-POPULATION-SERVE	Total population obtaining water from this PWS.
8	184	PWF-PLANT-SERVICES-NUMBER	The number of service connections, not counting consecutive water systems, which use water from the PWS.
8	185	PWF-PLANT-METERS-NUMBER	The number of service connections with meters.
8	188	PWF-PLANT-EMERGENCY-POWER	The amount of water in gallons per day that can be produced with power generation equipment of the PWS.
8	187	PWF-PLANT-DESIGN-CAPACITY	Approved design capacity in gallons per day of the treatment plant.
8	189	PWF-PLANT-STORAGE-CAPACITY	The storage capacity in gallons that is ready for distribution.

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FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-AVERAGE-PRODUCTION
CATALOGUE NO: 186 DESCRIPTION: Average annual production in gallons per day in the most recent year.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-MAX-PRODUCTION
CATALOGUE NO: 190 DESCRIPTION: The maximum daily production capacity of the PWS in gallons per day.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-INTERSTATE-CARRIER
CATALOGUE NO: 181 DESCRIPTION: A flag indicating whether or not a PWS supplies water to an interstate carrier.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-ACTIVITY
CATALOGUE NO: 194 DESCRIPTION: A flag indicating whether or not the PWS plant is active.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-DEACTIVATION-DATE
CATALOGUE NO: 196 DESCRIPTION: A code identifying the reason for deactivation of the PWS.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-DEACTIVATION-REASON
CATALOGUE NO: 195 DESCRIPTION: The date on which the PWS became inactive, converted from Julian format.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-MANUAL-FILE
CATALOGUE NO: 197 DESCRIPTION: A reference to manual files for record keeping.

FIELD NO: 8 DATA ELEMENT NAME: PWP-PLANT-LAST-SURVEY-DATE
CATALOGUE NO: 192 DESCRIPTION: The date on which the last Sanitary Survey was performed at a PWS plant converted from Julian format.

FIELD NO: 8 DATA ELEMENT NAME: PWP-LAST-UPDATE-DATE
CATALOGUE NO: 234 DESCRIPTION: The date on which the last update was made, converted from Julian format.

FIELD NO: 9 DATA ELEMENT NAME: PWP-STATE-BACTERIOLOGICAL-FLG
CATALOGUE NO: 202 DESCRIPTION: A flag identifying whether sample input data will be reported on a list or summary input form.

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FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-MIN-NO-DAILY-CHECKS
CATALOGUE NO: 207 DESCRIPTION: The number of check samples that must be taken per day if the State requires more than one be taken per day.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-NCOM-SAMPLE-FREQ
CATALOGUE NO: 208 DESCRIPTION: The alternate sampling frequency for a non-community PWS in lieu of the default value specified in the regulations.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-MONTHLY-MONITORING
CATALOGUE NO: 203 DESCRIPTION: A flag telling whether or not the PWS must determine compliance for Bacteriological contamination on a monthly basis if less than 4 samples per month are required.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-NO-OF-SAMPLES
CATALOGUE NO: 204 DESCRIPTION: Minimum number of samples a small community water supply must take per quarter in lieu of monthly monitoring, or a non-community water supply must take within a specified time period in lieu of default in the RGF.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-SEASON-BEGIN
CATALOGUE NO: 205 DESCRIPTION: The month and day that a non-community PWS begins operations seasonally.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-SEASON-END
CATALOGUE NO: 206 DESCRIPTION: The month and day that a non-community PWS ends operations seasonally.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-MCL-HALT-CHECK-SAMP
CATALOGUE NO: 209 DESCRIPTION: Minimum number of consecutive days worth of negative check samples required to halt Bacteriological Check sampling for a PWS.

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FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-CHLORINE
CATALOGUE NO: 210 DESCRIPTION: The percent of samples for Bacteriological Analysis that may be substituted by Chlorine Residual Sampling and Analysis.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-FLAG
CATALOGUE NO: 211 DESCRIPTION: A flag which will indicate whether sample input data will be reported on a list or summary input form.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-UNITS
CATALOGUE NO: 212 DESCRIPTION: The number of Turbidity Units allowed as an MCL for the monthly average to Turbidity Samples for a PWS.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-TOTAL-TTHM-SAMPLES
CATALOGUE NO: 738 DESCRIPTION: The total number of trihalomethane samples to be taken by a PWS during a compliance period, if the number to be taken is more or less than the number required by the regulation.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-NUMBER-OF-PLANTS
CATALOGUE NO: 739 DESCRIPTION: The number of treatment plants operated by a PWS.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-AIR-TEMPERATURE
CATALOGUE NO: 217 DESCRIPTION: The annual average daily maximum air temperature of the PWS.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-ORGANIC-BEGIN-PERIOD
CATALOGUE NO: 215 DESCRIPTION: The beginning date, month and day, of a seasonal period for which monitoring for Organic Chemicals is to be performed for a PWS.

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FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-TTHM-FREQ
CATALOGUE NO: 740 DESCRIPTION: The frequency with which trihalomethane compliance is to be done, either quarterly or yearly.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-NITRATE-FREQUENCY
CATALOGUE NO: 218 DESCRIPTION: The monitoring frequency for nitrate to be used by a non-community PWS after completion of initial analyses.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-ORGANIC-END-PERIOD
CATALOGUE NO: 216 DESCRIPTION: The ending date, month and day, of a seasonal period for which monitoring for Organic Chemicals is to be performed for a PWS.

FIELD NO: 9 DATA ELEMENT NAME: PWF-STATE-ENGLISH-METRIC-SYSTM
CATALOGUE NO: 232 DESCRIPTION: A flag indicating whether the English (gallons/fahrenheit) or Metric (liters/celsius) system of measurement is used by the PWS.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-FLAG
CATALOGUE NO: 219 DESCRIPTION: A flag indicating whether the PWS is to be monitored continuously for Radioactive Contaminants and under which conditions.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-MONITOR-GROSS-ALPHA
CATALOGUE NO: 226 DESCRIPTION: The monitoring frequency in months to be used for monitoring Gross Alpha Particle activity for a PWS.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-NUM-SAMPLES-PER-YEAR
CATALOGUE NO: 228 DESCRIPTION: The number of samples to be taken per year for Gross Alpha and Radium Analyses when the average annual concentration is less than half the MCL.

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PROGRAM NO: PWSI060

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FIELD NO:	CATALOGUE NO:	DATA ELEMENT NAME:	DESCRIPTION:
10	220	PWF-STATE-RADIOACTIVE-MONITOR	A flag indicating whether or not the instrument detection limit for Beta Emitters is to be used in determining compliance when a value lower than the detection limit is entered and how the PWS is reporting sample analysis results.
10	227	PWF-STATE-MONITOR-RADIUM-MNTHS	The monitoring frequency in months to be used for monitoring Radium Particle activity for a PWS.
10	222	PWF-STATE-NUCLEAR-FACILITY	A flag indicating whether the PWS is contaminated by effluents from a Nuclear facility.
10	221	PWF-STATE-BETA-FREQ-MONTHS	The minimum frequency required for monitoring man-made Radionuclides for this PWS after initial analysis.
10	229	PWF-STATE-GROUND-WATER-MONITOR	A flag to indicate whether the PWS is to monitor Organic Contaminants, Gross Beta, or both, if it is supplied by ground water sources only.
10	223	PWF-STATE-NUCLEAR-FAC-TYPE1	A code identifying the type of Nuclear facility whose Radioactive effluents are contaminanting a PWS in addition to the first type.

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FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE2
CATALOGUE NO: 702 DESCRIPTION: A code identifying the type of Nuclear facility whose Radioactive effluents are contaminating a PWS in addition to the first type.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-REPORT-REQUIRED
CATALOGUE NO: 230 DESCRIPTION: A flag indicating whether or not a PWS must submit a monthly operations report.

FIELD NO: 10 DATA ELEMENT NAME: PWF-STATE-LAST-REPORT-DATE
CATALOGUE NO: 231 DESCRIPTION: The month and year on which the last monthly operations report was submitted.

FIELD NO: 11 DATA ELEMENT NAME: PWF-STATE-FAC-CONTAMINANT-ID
CATALOGUE NO: 224 DESCRIPTION: A four character code representing the contaminant name of a Beta Emitter to be monitored by the PWS.

FIELD NO: 11 DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-FREQ
CATALOGUE NO: 225 DESCRIPTION: The monitoring frequency in months to be used when monitoring for a PWS.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-SAMPLES
CATALOGUE NO: 568 DESCRIPTION: The number of samples to be submitted during the monitoring period of a non-community strategy.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-FREQ
CATALOGUE NO: 567 DESCRIPTION: The monitoring frequency of a non-community strategy expressed in months for nitrate and days for Coliform.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-DATE-OF-PLAN
CATALOGUE NO: 566 DESCRIPTION: The date of the non-community strategy.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-START
CATALOGUE NO: 569 DESCRIPTION: The start date of the special monitoring period created by a non-community strategy.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-END
CATALOGUE NO: 570 DESCRIPTION: The end date of the special monitoring period created by a non-community strategy.

FIELD NO: 11A DATA ELEMENT NAME: PWF-STATE-I131-FREQ
CATALOGUE NO: 572 DESCRIPTION: An altered monitoring frequency expressed in months for Iodine-131.

FIELD NO: 12 DATA ELEMENT NAME: PWF-LAB-ID
CATALOGUE NO: 235 DESCRIPTION: A five digit code identifying the laboratory performing a major percentage of analyses for the PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-LAB-CAPTIVE-FLAG
CATALOGUE NO: 236 DESCRIPTION: Flag indicating whether or not the laboratory belongs to the PWS.

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FIELD NO: 13 DATA ELEMENT NAME: PWF-VAEX-CONTAMINANT-ID
CATALOGUE NO: 238 DESCRIPTION: A four digit code identifying the contaminant for which a variance or exemption was granted.

FIELD NO: 13 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL
CATALOGUE NO: 239 DESCRIPTION: The MCL relative to the contaminant for which a variance or exemption has been granted.

FIELD NO: 13 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL-DEC
CATALOGUE NO: 240 DESCRIPTION: The number of decimal positions that should appear in the modified MCL.

FIELD NO: 13 DATA ELEMENT NAME: PWF-VAEX-ALT-MONITOR-FREQ
CATALOGUE NO: 241 DESCRIPTION: The alternate monitoring frequency to be used for a contaminant relative to the granting of a variance or exemption.

FIELD NO: 14 DATA ELEMENT NAME: PWF-TOTAL-OCCURANCES-NO
CATALOGUE NO: 727 DESCRIPTION: Represents the total number of sources and entry points in a given Public Water System.

FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-SOURCE-NAME
CATALOGUE NO: 243 DESCRIPTION: The name of a water source used by the PWS.

FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
CATALOGUE NO: 244 DESCRIPTION: A code identifying the type of water source (surface, ground, purchased).

FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-NUMBER-OF-WELLS
CATALOGUE NO: 245 DESCRIPTION: The number of wells within a given ground water source.

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FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-AVAILABILITY
CATALOGUE NO: 246 DESCRIPTION: A code to identify the availability of a water source.

FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-BASIN-NUMBER
CATALOGUE NO: 247 DESCRIPTION: A code identifying the river or lake from which a surface water source is obtained by a PWS, as defined by STORET.

FIELD NO: 14 DATA ELEMENT NAME: PWF-PLANT-SELLER-ID
CATALOGUE NO: 250 DESCRIPTION: The PWS-ID of the PWS selling water to this PWS.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-AERATION
CATALOGUE NO: 251 DESCRIPTION: A flag indicating whether or not the source has a given Aeration Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-PRECHLORINATION
CATALOGUE NO: 252 DESCRIPTION: A flag indicating whether or not the source has a given Prechlorination Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-COAGULATION
CATALOGUE NO: 253 DESCRIPTION: A flag indicating whether or not the source has a given Coagulation Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-SEDIMENTATION
CATALOGUE NO: 254 DESCRIPTION: A flag indicating whether or not the source has a given Sedimentation Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-FILTRATION
CATALOGUE NO: 255 DESCRIPTION: A flag indicating whether or not the source has a given Filtration Technique applied to it.

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FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-CORROSION-CONTROL
CATALOGUE NO: 256 DESCRIPTION: A flag indicating whether or not the source has a given Corrosion Control Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-SOFTENING
CATALOGUE NO: 257 DESCRIPTION: A flag indicating whether or not the source has a given Softening Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-TASTE-ODOR
CATALOGUE NO: 258 DESCRIPTION: A flag indicating whether or not the source has a given Taste and Odor Removing Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-IRON-REMOVAL
CATALOGUE NO: 259 DESCRIPTION: A flag indicating whether or not the source has a given Iron Removal Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-AMMONIATION
CATALOGUE NO: 260 DESCRIPTION: A flag indicating whether or not the source has a given Ammoniation Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-FLUORIDE-ADJUSTMENT
CATALOGUE NO: 261 DESCRIPTION: A flag indicating whether or not the source has a given Fluoride Adjustment Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWF-PLANT-DISINFECTION
CATALOGUE NO: 262 DESCRIPTION: A flag indicating whether or not the source has a given Disinfection Technique applied to it.

FIELD NO: 15 DATA ELEMENT NAME: PWE-PLANT-OTHER-TREATMENT
CATALOGUE NO: 263 DESCRIPTION: A flag indicating whether or not the source has treatments other than those listed above applied to it.

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FIELD NO: 16 DATA ELEMENTS NAME: PWF-PLANT-LATITUDE
PWF-ENTRY-POINT-LATITUDE
CATALOGUE NO: 248
734
DESCRIPTION: The latitude of the water source in degrees, minutes and seconds.

FIELD NO: 16 DATA ELEMENTS NAME: PWF-PLANT-LONGITUDE
PWF-ENTRY-POINT-LONGITUDE
CATALOGUE NO: 249
735
DESCRIPTION: The longitude of the water source in degrees, minutes and seconds.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-NAME
CATALOGUE NO: 728 DESCRIPTION: Represents the name of the entry point, if any, used by the Public Water System.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-CODE
CATALOGUE NO: 729 DESCRIPTION: Represents the code identifying the entry point as an entry point (vs. a source).

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-ID
CATALOGUE NO: 730 DESCRIPTION: Represents a unique identifier for a given entry point which allows samples to be associated with the entry point from which they were taken.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-TURB-FLAG
CATALOGUE NO: 731 DESCRIPTION: Represents a flag indicating whether sample input data will be reported as list or summary input form from this entry point.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-TURB-UNITS
CATALOGUE NO: 732 DESCRIPTION: Represents the number of Turbidity units allowed as an MCL for the monthly average for the PWS.

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FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-VE-MNTHLY-AVG
CATALOGUE NO: 733 DESCRIPTION: Represents the modified monthly average MCL which has been granted for this entry point as a condition of a Variance, Exemption or Enforcement Action for Turbidity monitoring.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-VE-CONSEC-AVG
CATALOGUE NO: 736 DESCRIPTION: Represents the modified consecutive daily average MCL which has been granted for this entry point as a condition of a Variance, Exemption or Enforcement Action for Turbidity monitoring.

FIELD NO: 16 DATA ELEMENT NAME: PWF-ENTRY-POINT-ALT-MON-FREQ
CATALOGUE NO: 737 DESCRIPTION: Represents the number of hours between regular turbidity samples and may be granted as a result of a Variance or Exemption as a normal alternate monitoring frequency for a non-community PWS.

Binder 15
3/31/80

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2/22/79

Produce Sort Sequence Report
SouthWestern Ohio Regional Computer Center

Exhibit PWSI.304

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PWSI060 XX.XX                MODEL STATE INFORMATION SYSTEM
                            PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX
                                 SORT SEQUENCE REPORT                              PAGE ZZZZ9

                              NO SORT OPTION RECORD PROVIDED


                                     SORT SEQUENCE

                               MNEMONIC NAME     SORT MODE

                              1. XXXXXXXXXX          X
                              2. XXXXXXXXXX          X
                              3. XXXXXXXXXX          X
                              4. XXXXXXXXXX          X
                              5. XXXXXXXXXX          X
                              6. XXXXXXXXXX          X
                              7. XXXXXXXXXX          X
                              8. XXXXXXXXXX          X
                              9. XXXXXXXXXX          X
                             10. XXXXXXXXXX          X

                             TREATMENT KEY FOR COMPREHENSIVE REPORT

                             A  AERATION
                             B  PRECHLORINATION
                             C  COAGULATION
                             D  SEDIMENTATION
                             E  FILTRATION
                             F  CORROSION CONTROL
                             G  SOFTENING
                             H  TASTE/ODOR
                             I  IRON REMOVAL
                             J  AMMONIATION
                             K  FLUORIDE ADJUSTMENT
                             L  DISINFECTION
                             M  OTHER
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         PWSI120                              1 OF 1
                                              11/16/76
   CONVERT NATIONAL INVENTORY MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
   EXHIBIT PWSI.305


PWSI120                                          MODEL STATE INFORMATION SYSTEM
                                             PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX
                                                    NATIONAL PUBLIC WATER FILE
               1                   2                 CONVERTED DATA REPORT                                 PAGE ZZZZ9
PWS PLANT  ID: XXXXXXX NATIONAL KEY: XXXXXXXXXXXXXX     3
         NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PHONE: XXXXX XXXXXXXX -----PLANT-----       6      ----PLANT----      7
     LOCATION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX OWNER TYPE: X         COUNTY CODE        : XXX     DESIGN CAPACITY  : XXXXXXXXXX
               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              5        POPULATION SERVED  : XXXXXXXXX EMERGENCY POWER : XXXXXXXXXX
               XX  XXXXX                                            NUMBER SERVICES    : XXXXXXX   STORAGE CAPACITY: XXXXXXXXXX
                         4                                          NUMBER METERS      : XXXXXXX   AVERAGE CAPACITY: XXXXXXXXXX
                                                                    BEGIN DATE         : XX/XX     MAX. PRODUCTION : XXXXXXXXXX
SERVICE AREA CHARACTERISTICS    COMMUNITY: X   COMPANY TOWN: X   RECREATION      : X   MOBILE HOME PARK: X   INSTITUTION      : X
                  SCHOOL : X    MOTEL    : X   RESTAURANT  : X   SERVICE STATION : X   CAMPGROUND      : X   PICNIC AREA      : X
                  LODGE  : X    MARINA   : X   SKI RESORT  : X   BATHING         : X   VISITOR CENTER  : X   HIGHWAY REST AREA: X
                  OTHER  : X
                          8               9                 10               11                        12                 13
PWS PLANT:                              SOURCE                                   SOURCES
     SOURCE NAME     LATITUDE LONGITUDE  CODE   TREATMENTS -- 1  2  3  4  5  6  7  8  9 10 11 12   LAST UPDATE DATE: XX/XX/XX

1 XXXXXXXXXXXXXXX    XXXXXXX  XXXXXXX     X     AERATION        X  X  X  X  X  X  X  X  X  X  X  X
        14             15       16       17     PRECHLORINATION X  X  X  X  X  X  X  X  X  X  X  X
                                                COAGULATION     X  X  X  X  X  X  X  X  X  X  X  X
                                                SEDIMENTATION   X  X  X  X  X  X  X  X  X  X  X  X
                                                FILTRATION      X  X  X  X  X  X  X  X  X  X  X  X
                                                CORROSION CNTRL X  X  X  X  X  X  X  X  X  X  X  X
                                                SOFTENING       X  X  X  X  X  X  X  X  X  X  X  X
                                                TASTE ODOR      X  X  X  X  X  X  X  X  X  X  X  X
                                                IRON REMOVAL    X  X  X  X  X  X  X  X  X  X  X  X
                                                AMMONIATION     X  X  X  X  X  X  X  X  X  X  X  X
                                                FLUORIDE ADJUST X  X  X  X  X  X  X  X  X  X  X  X
                                                DISINFECTION    X  X  X  X  X  X  X  X  X  X  X  X
                                                                                18
```

EXHIBIT NO: PWSI.305 PAGE 1 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 1
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2
CATALOGUE NO: 233
DATA ELEMENT NAME: PWF-STATE-RESERVE-FOR-STATE
DESCRIPTION: National key is first 14 positions.

FIELD NO: 3
CATALOGUE NO: 156
DATA ELEMENT NAME: PWF-MAILING-AREA-CODE
DESCRIPTION: Bell Telephone System Area Code.

FIELD NO: 3
CATALOGUE NO: 157
DATA ELEMENT NAME: PWF-MAILING-PHONE-NUMBER
DESCRIPTION: Mailing addressee phone number.

FIELD NO: 4
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-MAILING-NAME
DESCRIPTION: The mailing name of the PWS.

FIELD NO: 4
CATALOGUE NO: 152
DATA ELEMENT NAME: PWS-MAILING-STREET
DESCRIPTION: First line of the mailing address of the PWS.

FIELD NO: 4
CATALOGUE NO: 153
DATA ELEMENT NAME: PWS-MAILING-CITY
DESCRIPTION: Second line of the mailing address of the PWS.

FIELD NO: 4
CATALOGUE NO: 154
DATA ELEMENT NAME: PWF-MAILING-STATE
DESCRIPTION: The U.S. Postal Service Zip Code the mailing address of the PWS.

FIELD NO: 5
CATALOGUE NO: 237
DATA ELEMENT NAME: PWF-OWNER-TYPE
DESCRIPTION: A code identifying the type of PWS owner.

FIELD NO: 6
CATALOGUE NO: 159
DATA ELEMENT NAME: PWF-PLANT-COUNTY-CODE
DESCRIPTION: The three digit county code as listed by STORET.

EXHIBIT NO: PWSI.305

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 6
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from this PWS.

FIELD NO: 6
CATALOGUE NO: 184
DATA ELEMENT NAME: PWF-PLANT-SERVICES-NUMBER
DESCRIPTION: The number of service connections, not counting consecutive water systems, which use water from this PWS.

FIELD NO: 6
CATALOGUE NO: 185
DATA ELEMENT NAME: PWF-PLANT-METERS-NUMBER
DESCRIPTION: The number of service connections with water meters.

FIELD NO: 6
CATALOGUE NO: 191
DATA ELEMENT NAME: PWF-PLANT-BEGIN-DATE
DESCRIPTION: The date on which the PWS began operation.

FIELD NO: 7
CATALOGUE NO: 187
DATA ELEMENT NAME: PWF-PLANT-DESIGN-CAPACITY
DESCRIPTION: Approved design capacity in gallons or liters per day of the treatment plant.

FIELD NO: 7
CATALOGUE NO: 188
DATA ELEMENT NAME: PWF-FLANT-EMERGENCY-POWER
DESCRIPTION: The amount of water in gallons or liters per day that can be produced with power generation equipment of the PWS.

FIELD NO: 7
CATALOGUE NO: 189
DATA ELEMENT NAME: PWF-PLANT-STORAGE-CAPACITY
DESCRIPTION: The storage capacity in gallons or liters that is ready for the distribution system.

FIELD NO: 7
CATALOGUE NO: 186
DATA ELEMENT NAME: PWF-PLANT-AVERAGE-PRODUCTION
DESCRIPTION: Average annual production in gallons or liters per day in most recent year.

EXHIBIT NO: PWSI.305 PAGE 3 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-MAX-PRODUCTION
CATALOGUE NO: 190 DESCRIPTION: Maximum daily production in gallons or liters per day.

FIELD NO: 8 DATA ELEMENT NAME: PWF-PLANT-SCHOOL
CATALOGUE NO: 166 DESCRIPTION: A flag to tell whether or not the PWS serves a school.

FIELD NO: 8 DATA ELEMENT NAME: PWF-PLANT-LODGE
CATALOGUE NO: 172 DESCRIPTION: A flag to tell whether or not the PWS serves a lodge.

FIELD NO: 8 DATA ELEMENT NAME: PWF-PLANT-OTHER-AREA
CATALOGUE NO: 179 DESCRIPTION: A flag to tell whether or not the PWS serves something other than those listed.

FIELD NO: 9 DATA ELEMENT NAME: PWF-PLANT-RESIDENTIAL
CATALOGUE NO: 161 DESCRIPTION: A flag to tell whether or not the PWS serves a residential area.

FIELD NO: 9 DATA ELEMENT NAME: PWF-PLANT-MOTEL
CATALOGUE NO: 167 DESCRIPTION: A flag to tell whether or not the PWS serves a motel.

FIELD NO: 9 DATA ELEMENT NAME: PWF-PLANT-MARINA
CATALOGUE NO: 173 DESCRIPTION: A flag to tell whether or not the PWS serves a marina.

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-COMPANY-TOWN
CATALOGUE NO: 162 DESCRIPTION: A flag to tell whether or not the PWS serves a company or town area.

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-RESTAURANT
CATALOGUE NO: 168 DESCRIPTION: A flag to tell whether or not the PWS serves a restaurant.

EXHIBIT NO: PWSI.305 PAGE 4 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-SKI-RESORT
CATALOGUE NO: 174 DESCRIPTION: A flag to tell whether or not the PWS serves a ski resort.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-RECREATION
CATALOGUE NO: 163 DESCRIPTION: A flag to tell whether or not the PWS serves a recreation area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-SERVICE-STATION
CATALOGUE NO: 169 DESCRIPTION: A flag to tell whether or not the PWS serves a service station.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-BATHING
CATALOGUE NO: 175 DESCRIPTION: A flag to tell whether or not the PWS serves a bathing area.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-MOBILE-HOMES
CATALOGUE NO: 164 DESCRIPTION: A flag to tell whether or not the PWS serves a mobile home park.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-CAMPGROUND
CATALOGUE NO: 170 DESCRIPTION: A flag to tell whether or not the PWS serves a campground.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-VISITOR-CENTER
CATALOGUE NO: 176 DESCRIPTION: A flag to tell whether or not the PWS serves a visitor center.

FIELD NO: 13 DATA ELEMENT NAME: PWF-PLANT-INSTITUTION
CATALOGUE NO: 165 DESCRIPTION: A flag to tell whether or not the PWS serves an institution (prison, state hospital, etc.).

FIELD NO: 13 DATA ELEMENT NAME: PWF-PLANT-PICNIC-AREA
CATALOGUE NO: 171 DESCRIPTION: A flag to tell whether or not the PWS serves a picnic area.

EXHIBIT NO: PWSI.305 PAGE 5 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 13
CATALOGUE NO: 177
DATA ELEMENT NAME: PWF-PLANT-HWY-REST-AREA
DESCRIPTION: A flag to tell whether or not the PWS serves a highway rest area.

FIELD NO: 14
CATALOGUE NO: 243
DATA ELEMENT NAME: PWF-PLANT-SOURCE-NAME
DESCRIPTION: The name of the water source.

FIELD NO: 15
CATALOGUE NO: 248
DATA ELEMENT NAME: PWF-PLANT-LATITUDE
DESCRIPTION: The latitude of the water source.

FIELD NO: 16
CATALOGUE NO: 249
DATA ELEMENT NAME: PWF-PLANT-LONGITUDE
DESCRIPTION: The longitude of the water source.

FIELD NO: 17
CATALOGUE NO: 244
DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
DESCRIPTION: A flag telling whether the water source is from surface water, ground water, purchased water, or a distribution system.

FIELD NO: 18
CATALOGUE NO: 251
DATA ELEMENT NAME: PWF-PLANT-AERATION
DESCRIPTION: A flag to tell whether or not the water source uses Aeration Treatment Method.

FIELD NO: 18
CATALOGUE NO: 252
DATA ELEMENT NAME: PWF-PLANT-PRECHLORINATION
DESCRIPTION: A flag to tell whether or not the water source uses Prechlorination Treatment Method.

FIELD NO: 18
CATALOGUE NO: 253
DATA ELEMENT NAME: PWF-PLANT-COAGULATION
DESCRIPTION: A flag to tell whether or not the water source uses Coagulation Treatment Method.

EXHIBIT NO: PWSI.305　　PAGE 6 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-SEDIMENTATION
CATALOGUE NO: 254　DESCRIPTION: A flag to tell whether or not the water source uses Sedimentation Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-FILTRATION
CATALOGUE NO: 255　DESCRIPTION: A flag to tell whether or not the water source uses Filtration Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-CORROSION-CONTROL
CATALOGUE NO: 256　DESCRIPTION: A flag to tell whether or not the water source uses Corrosion Control Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-SOFTENING
CATALOGUE NO: 257　DESCRIPTION: A flag to tell whether or not the water source uses Softening Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-TASTE-ODOR
CATALOGUE NO: 258　DESCRIPTION: A flag to tell whether or not the water source uses Taste-Order Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-IRON-REMOVAL
CATALOGUE NO: 259　DESCRIPTION: A flag to tell whether or not the water source uses Iron Removal Treatment Method.

FIELD NO: 18　DATA ELEMENT NAME: PWF-PLANT-AMMONIATION
CATALOGUE NO: 260　DESCRIPTION: A flag to tell whether or not the water source uses Ammoniation Treatment Method.

EXHIBIT NO: PWSI.305 PAGE 7 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-FLUORIDE-ADJUSTMENT
CATALOGUE NO: 261 DESCRIPTION: A flag to tell whether or not the water source uses Fluoride Adjustment Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-DISINFECTION
CATALOGUE NO: 262 DESCRIPTION: A flag to tell whether or not the water source uses Disinfection Treatment Method.

```
              PWS1090                           1 OF 1
                                                11/18/77
     PHF PURGE MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT PWS1.306

PWS1090                                            MODEL STATE INFORMATION SYSTEM
                                               PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE xx/xx/xx                                      PUBLIC HISTORY FILE PURGE REPORT                                     PAGE ZZZZ9
                                                        PURGE DATE: xx/xx/xx
                                                                 DATA
                                       CURRENT REGION    LAST   ELEMENT
PWS-ID             PWS NAME             UPDATE     DIST UPDATE  CTLG.NO          NEW VALUE                      OLD VALUE
xxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xx/xx/xx xx  xx xx/xx/xx   xxx  xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  1                 2                     3     4    5      6      7                  8                             9
```

EXHIBIT NO: PWSI.306 PAGE 1 OF 1

PROGRAM NO: PWSI090

TITLE: Public History File Purge Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: PWS-ID of corresponding PWF record.

FIELD NO: 2 DATA ELEMENT NAME: PWT-MAILING-NAME
CATALOGUE NO: 267 DESCRIPTION: Name of mailing address of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: Date on which this record was updated, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: Region within state where PWS is located.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: District within region where PWS is located.

FIELD NO: 6 DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: Date on which the record was last updated, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-CODE
CATALOGUE NO: 311 DESCRIPTION: Data element catalogue number of the updated data element.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: Value of data element after the update.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: Value of data element before the update.

PWSI070 1 of 1
1/12/77

PHF Maintenance Module
SouthWestern Ohio Regional Computer Center

EXHIBIT PWSI.307

```
                                  MODEL STATE INFORMATION SYSTEM
PWSI070                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                PUBLIC WATER SYSTEM INVENTORY UPDATE REPORT                        PAGE ZZZZ9
                                    OPTION: XXXXXXXXXXXXXX ①

                                                          DATA
                               CURRENT REGION  LAST    ELEMENT
PWS-ID      PWS NAME           UPDATE     DIST UPDATE  CTLG.NO          NEW VALUE                        OLD VALUE

XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX ¦ XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
   1              2                3     4   5     6       7              8                               9
```

① X's will be replaced by one of the following:

a. CURRENT UPDATES
b. ALL UPDATES

EXHIBIT NC: PWSI.307 PAGE 1 OF 1

PROGRAM NC: PWSI070

TITLE: Public Water System Inventory Update Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PHF-PLANT-OWNER-NAME
CATALOGUE NO: 313 DESCRIPTION: The official name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: The date on which the update occurred, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 6 . DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: The date on which the previous update, if any, occurred, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-COED
CATALOGUE NO: 311 DESCRIPTION: The data element catalogue number of the field being updated.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: The value of the field after the update occurred.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: The value of the field before the update occurred.

```
        PWS1010                              1 OF 1
                                             3/2/77
     PWF DATA ENTRY AND UPDATE MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
     EXHIBIT PWS1.309

                                                 MODEL STATE INFORMATION SYSTEM
PWS1010                                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                   PWF UPDATE STATISTICS REPORT                              PAGE ZZZZ9

                                                                                   % RELATIVE TO THE ,
                                                                     -- TOTAL --     ORIGINAL FILE
               1. NUMBER OF RECORDS ORIGINALLY ON THE FILE           ZZZ,ZZZ,ZZ9  1
               2. NUMBER OF ACCEPTABLE DATA ENTRY TRANSACTIONS       ZZZ,ZZZ,ZZ9  2
               3. NUMBER OF STANDARD ERROR RECORDS CREATED           ZZZ,ZZZ,ZZ9  3
               4. NUMBER OF RECORDS MODIFIED ON THE FILE             ZZZ,ZZZ,ZZ9  4       ZZ9 %  5
               5. NUMBER OF NEW RECORDS ADDED TO THE FILE            ZZZ,ZZZ,ZZ9  6       ZZ9 %  7
               6. NUMBER OF DEACTIVATED RECORDS ON THE FILE          ZZZ,ZZZ,ZZ9  8       ZZ9 %  9
               7. NUMBER OF RECORDS DEACTIVATED THIS RUN             ZZZ,ZZZ,ZZ9  10
               8. NUMBER OF RECORDS DELETED THIS RUN                 ZZZ,ZZZ,ZZ9  11      ZZ9 %  12
               9. NUMBER OF RECORDS NOW ON THE FILE                  ZZZ,ZZZ,ZZ9  13      ZZ9 %  14
              10. NUMBER OF NEW PWS RECORDS                          ZZZ,ZZZ,ZZ9  15
              11. NUMBER OF INCOMPLETE PWS RECORDS                   ZZZ,ZZZ,ZZ9  16
              12. NUMBER OF PWS STATUS RECORDS                       ZZZ,ZZZ,ZZ9  17
              13. NUMBER OF UNSUCCESSFUL UPDATE RECORDS              ZZZ,ZZZ,ZZ9  18
```

EXHIBIT NO: PWSI.309 PAGE 1 OF 2

PROGRAM NO: PWSI010

TITLE: PWF Update Statistics Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the PWF input file.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of transactions that were error-free or were accepted with errors.

FIELD NO: 3
DESCRIPTION: An accumulation of the number of records written to the SEF.

FIELD NO: 4
DESCRIPTION: An accumulation of the number of existing records which had changes made this run.

FIELD NO: 5
DESCRIPTION: Calculation: the number of records modified divided by the number of records on the input PWF.

FIELD NO: 6
DESCRIPTION: An accumulation of the number of records added to the PWF this run.

FIELD NO: 7
DESCRIPTION: Calculation: the number of records added to the file divided by the number of records on the input PWF.

FIELD NO: 8
DESCRIPTION: An accumulation of the total number of deactivated PWS's on the output PWF.

FIELD NO: 9
DESCRIPTION: Calculation: the number of deactivated records divided by the number of records on the input PWF.

FIELD NO: 10
DESCRIPTION: An accumulation of the number of PWS's that were deactivated this run.

FIELD NO: 11
DESCRIPTION: An accumulation of the number of records deleted this run.

EXHIBIT NO: PWSI.309 PAGE 2 OF 2

PROGRAM NO: PWSI010

TITLE: PWF Update Statistics Report

FIELD NO: 12
DESCRIPTION: Calculation: the number of records deleted divided by the number of records on the input PWF.

FIELD NO: 13
DESCRIPTION: An accumulation of the number of records written to the output PWF.

FIELD NO: 14
DESCRIPTION: Calculation: the number of records written to the output PWF divided by the number of records on the input PWF.

FIELD NO: 15
DESCRIPTION: An accumulation of the number of new PWS records which were created this run.

FIELD NO: 16
DESCRIPTION: An accumulation of the number of records which were missing MSIS required data and were therefore not put on the PWF.

FIELD NO: 17
DESCRIPTION: An accumulation of the number of Status Request Records that were processed.

FIELD NO: 18
DESCRIPTION: An accumulation of the number of input transactions that were not successful in updating the PWF due to errors within the transaction.

```
          PWS1080                         1 OF 1
                                          12/14/76
PHF SELECTION MODULE
      SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWS1.311


PWS1080                                  MODEL STATE INFORMATION SYSTEM
                                      PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX
                                         PUBLIC HISTORY FILE SELECTION REPORT
                                                                                            PAGE ZZZZ9
                                                                 DATA
PWS-ID              PWS NAME                CURRENT REGION      LAST   ELEMENT
                                             UPDATE      DIST  UPDATE  CTLG.NO       NEW VALUE                             OLD VALUE
XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
   1          2                           3     4  5    6        7              8                                 9
```

EXHIBIT NO: PWSI.311 PAGE 1 OF 1

PROGRAM NO: PWSI080

TITLE: Public History File Selection Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PHF-PLANT-OWNER-NAME
CATALOGUE NO: 313 DESCRIPTION: The official name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: The date on which the update occurred, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 6 DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: The date on which the previous update, if any, occurred, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-CODE
CATALOGUE NO: 311 DESCRIPTION: The data element catalogue number of the field being updated.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: The value of the field after the update occurred.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: The value of the field before the update occurred.

PWSI090   1 of 1
PHF Purge Module   11/18/76
SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.312

```
PWSI090                                  MODEL STATE INFORMATION SYSTEM
                                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX
                                     PUBLIC HISTORY FILE PURGE STATISTICS REPORT
                                                                                              PAGE ZZZZ9

                                                                                % RELATIVE TO THE
                                                                 -- TOTAL --     ORIGINAL FILE
            1. NUMBER OF RECORDS ORIGINALLY ON THE FILE          ZZZ,ZZZ,ZZ9 1
            2. NUMBER OF RECORDS PURGED THIS RUN                 ZZZ,ZZZ,ZZ9 2        ZZ9% 3
            3. NUMBER OF RECORDS NOW ON THE FILE                 ZZZ,ZZZ,ZZ9 4        ZZ9% 5
```

EXHIBIT NO: PWSI.312 PAGE 1 OF 1

PROGRAM NO: PWSI090

TITLE: Public History File Purge Statistics Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the input PHF.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of records purged from the PHF.

FIELD NO: 3
DESCRIPTION: A calculation; the number of records purged divided by the number of records originally on the PHF.

FIELD NO: 4
DESCRIPTION: An accumulation of the number of records written to the output PHF.

FIELD NO: 5
DESCRIPTION: A calculation; the number of records written to the output PHF divided by the number of records originally on the PHF.

Binder 15
4/10/78

```
PWSI125
                                          1 of 1
                                          9/10/77
           SouthWestern Ohio Regional Computer Center
Exhibit PWSI.313


PWSI125                                        MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                              PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
                                                  PWF TFANSACTION REPORT
                                                                                                  PAGE ZZZZ9
          NEW PWS ID  OLD PWS ID  TRANSACTION
                                     CODE                      REMAINDER OF TRANSACTION
           XXXXXXX     XXXXXXX        XX      X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
           XXXXXXX     XXXXXXX        XX      X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
              1           2            3                         4
```

Binder 15
4/10/78

EXHIBIT NO: PWSI.313 Page 1 of 1

PROGRAM NO: PWSI125

TITLE: PWF Transaction Report

FIELD NO: 1 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWS-TRANS-ID-NEW The newly defined Public Water System code used within the state.
FIELD NO: 2 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWS-TRANS-ID-OLD The original code of the PWS assigned by MSIS
FIELD NO: 3 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWFI-TRAN-CODE The code which identifies the type of transaction.
FIELD NO: 4 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: VARIES The information contained in the last 71 positions of the transaction.

Binder 15
4/10/78

```
        PWSI125                 1 of 1
                                9/10/77

      SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.315

                                  MODEL STATE INFORMATION SYSTEM
PWSI125                         PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                  Unused PWS ID CONVERSION TRANSACTION REPORT                        PAGE ZZZZ9

                               NEW PWS ID      OLD PWS ID      NATIONAL INVENTORY
                                                                    FILE KEY

                                 XXXXXXX         XXXXXXX        XXXXXXXXXXXXXXX

                                 XXXXXXX         XXXXXXX        XXXXXXXXXXXXXXX
                                    1               2                 3
```

Binder 15
4/10/78

EXHIBIT NO: PWSI.315 PAGE 1 OF 1

PROGRAM NO: PWSI125

TITLE: Unused PWS ID Conversion Transaction Report

FIELD NO: 1 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWS-TRANS-ID-NEW The newly defined Public Water System code used within the state.
FIELD NO: 2 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWS-TRANS-ID-OLD The original code of the PWS assigned by MSIS.
FIELD NO: 3 CATALOGUE NO: NONE	DATA ELEMENT DESCRIPTION:	NAME: PWS-TRANS-NATIONAL-KEY The code which was originally assigned to the PWS for use on the National Public Water System File.

```
           PWSI133                          1 of 1
                                            9/10/77
          SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.316


                                          MODEL STATE INFORMATION SYSTEM
PWSI125                                 PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX                             Nonconverted PWF TRANSACTION REPORT                                 PAGE ZZZZ9
                                                           REMAINDER OF TRANSACTION
                    PWS ID    TRANSACTION
                                 CODE
                    XXXXXXX       XX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XXXXXXX       XX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                      1           2                           3
```

EXHIBIT NO: PWSI.316 PAGE 1 OF 1

PROGRAM NO: PWSI125

TITLE: Nonconverted PWF Transaction Report

FIELD NO: 1	DATA ELEMENT	NAME:	PWS-TRANS-ID-OLD
CATALOGUE NO: NONE	DESCRIPTION:		The original code of the PWS assigned by MSIS.
FIELD NO: 2	DATA ELEMENT	NAME:	PWFI-TRAN-CODE
CATALOGUE NO: NONE	DESCRIPTION:		The code which identifies the type of transaction.
FIELD NO: 3	DATA ELEMENT	NAME:	VARIES
CATALOGUE NO: NONE	DESCRIPTION:		The information contained in the last 71 positions of the transaction.

```
        PWSI130                          1 of 1
                                         1/25/77
   PUBLIC WATER TABLE CREATE
          SouthWestern Ohio Regional Computer Center
  PWSI.314


   PWSI130                                          MODEL STATE INFORMATION SYSTEM
                                                PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
   DATE XX/XX/XX                                 PUBLIC WATER TABLE STATISTICS REPORT                            PAGE ZZZZ9

                                                                                 -- TOTAL --
                 1. NUMBER OF RECORDS ON THE PUBLIC WATER FILE                  ZZZ,ZZZ,ZZ9  1
                 2. NUMBER OF RECORDS WRITTEN TO THE PUBLIC WATER TABLE         ZZZ,ZZZ,ZZ9  2
```

EXHIBIT NO: PWSI.314 PAGE 1 OF 1

PROGRAM NO: PWSI130

TITLE: Public Water Table Statistics Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the input PWF.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of records written to the PWT.

Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. PWSI010 - PWF Data Entry & Update

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: WARNING - NEW PWS REPORT OPTION HAS DEFAULTED TO 1
REMEDIAL ACTION: None. This means that no new PWS Report will be produced.

MESSAGE: WARNING - INCOMPLETE RPT OPTION HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

MESSAGE: WARNING - STATUS REPORT OPTION HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

MESSAGE: WARNING - UNSUCCESSFUL RPT OPT HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

MESSAGE: PWF-ID
PWS-ID OF ZERO IS INVALID - RECORD REJECTED
REMEDIAL ACTION: Change the PWS-ID to a valid value and re-enter the transaction.

MESSAGE: PWF-PLANT-OWNER-NAME
EPA REQUESTED FLD MISSING
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-OWNER-NAME, but this information is required by the EPA to be reported. Enter the PWF-PLANT-OWNER-NAME and re-run the job.

MESSAGE: PWF-PLANT-STREET
EPA REQUESTED FLD MISSING
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-STREET, but this information is required by the EPA to be

reported. Enter the PWF-PLANT-STREET and re-run the job.

MESSAGE: PWF-PLANT-CITY
EPA REQUESTED FLD MISSING
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-CITY, but this information is required by the EPA to be reported. Enter the PWF-PLANT-CITY and re-run the job.

MESSAGE: PWF-PLANT-STATE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-STATE, but this information is required by the EPA to be reported. Either correct or enter the PWF-PLANT-STATE and re-run the job.

MESSAGE: PWF-PLANT-ZIP-CODE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-ZIP-CODE, but this information is required by the EPA to be reported. Either correct or enter the PWF-PLANT-ZIP-CODE and re-run the job.

MESSAGE: PWF-PLANT-INTERSTATE-CARRIER
EPA REQUESTED FLD MISSING OR INVALID DEFAULT N
REMEDIAL ACTION: The PWF-RECORD is created with an N in PWF-PLANT-INTERSTATE-CARRIER. If this is not correct, enter the correct PWF-PLANT-INTERSTATE-CARRIER and re-run the job.

MESSAGE: PWF-PLANT-POPULATION-SERVED
POP-SERVED AND CONSECUTIVE-NUM-PWS BOTH ZERO
REMEDIAL ACTION: When both the PWF-PLANT-POPULATION-SERVED and the PWF-PLANT-CONSECUTIVE-NUM-PWS are zeros, the record is rejected. Enter a non-zero number in one of the fields and re-run the job.

MESSAGE: PWF-PLANT-SERVICES-NUMBER
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-SERVICES-NUMBER, but this information is required by the EPA to be reported. Either enter or correct the PWF-PLANT-SERVICES-NUMBER and re-run the job.

MESSAGE: PWF-PLANT-AVERAGE-PRODUCTION

EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-AVERAGE-PRODUCTION, but this information is required by the EPA to be reported. Either correct or enter the PWF-PLANT-AVERAGE-PRODUCTION and re-run the job.

MESSAGE: PWF-PLANT-DESIGN-CAPACITY
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-DESIGN-CAPACITY, but this information is required by the EPA to be reported. Either correct or enter the PWF-PLANT-DESIGN-CAPACITY and re-run the job.

MESSAGE: PWF-PLANT-ACTIVITY
EPA REQUESTED FLD MISSING OR INVALID DEFAULT A
REMEDIAL ACTION: The PWF-RECORD is created with an A in PWF-PLANT-ACTIVITY. If this is not correct, enter the correct PWF-PLANT-ACTIVITY and re-run the job.

MESSAGE: PWF-PLANT-DEACTIVATION-DATE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-DEACTIVATION-DATE (and an A in PWF-PLANT-ACTIVITY). If this is not correct, enter the correct PWF-PLANT-DEACTIVATION-DATE and re-run the job.

MESSAGE: PWF-PLANT-DEACTIVATION-REASON
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-DEACTIVATION-REASON (and an A in PWF-PLANT-ACTIVITY). If this is not correct, enter the valid PWF-PLANT-DEACTIVATION-REASON and re-run the job.

MESSAGE: PWF-STATE-POSTAL-CODE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-STATE-POSTAL-CODE, but this information is required by the EPA to be reported. Either correct or enter the PWF-STATE-POSTAL-CODE and re-run the job.

MESSAGE: PWF-STATE-REGULATE-BY
EPA REQUESTED FLD MISSING OR INVALID - DEFAULT
REMEDIAL ACTION: The PWF-RECORD is created with the default PWF-STATE-REGULATE-BY (the default value is determined by the PWF-

PLANT-SERVICES-NUMBER and the PWF-PLANT-POPULATION-SERVED). If this value is not correct, enter the correct PWF-STATE-REGULATE-BY and re-run the job.

MESSAGE: PWF-STATE-CHLORINE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with zeros in PWF-STATE-CHLORINE. If this is not correct, enter the correct value in PWF-STATE-CHLORINE and re-run the job.

MESSAGE: PWF-STATE-TURBIDITY-UNITS
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with zeros in PWF-STATE-TURBIDITY-UNITS. If this is not correct, enter the correct value in PWF-STATE-TURBIDITY-UNITS and re-run the job.

MESSAGE: PWF-STATE-AIR-TEMPERATURE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with zeros in PWF-STATE-AIR-TEMPERATURE. If this is not what was wanted, enter the correct value in PWF-STATE-AIR-TEMPERATURE and re-run the job.

MESSAGE: PWF-OWNER-TYPE
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-OWNER-TYPE, but this information is required by EPA to be reported. Either correct or enter the PWF-OWNER-TYPE and re-run the job.

MESSAGE: PWF-PLANT-SOURCE-NAME
EPA REQUESTED FLD MISSING
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-SOURCE-NAME, but this information is required by the EPA to be reported. Enter the correct PWF-PLANT-SOURCE-NAME and re-run the job.

MESSAGE: PWF-PLANT-SELLER-ID
EPA REQUESTED FLD MISSING OR INVALID
REMEDIAL ACTION: The PWF-RECORD is created with a blank PWF-PLANT-SELLER-ID, but this information is required by the EPA to be reported. Enter the correct PWF-PLANT-SELLER-ID and re-run the job.

MESSAGE: PWF-PLANT-CONSEC-INDICATOR
EPA REQUESTED FLD MISSING OR INVALID DEFAULT 0

REMEDIAL ACTION: The PWF-RECORD is created with a 0 in PWF-PLANT-CONSEC-INDICATOR. If this is not correct, enter the correct PWF-PLANT-CONSEC-INDICATOR and re-run the job.

MESSAGE: PWF-STATE-TOTAL-TTHM-SAMPLES
WARNING - DEFAULT OF 4 TIMES NO. OF PLANTS USED
REMEDIAL ACTION: The number of PWF-STATE-TOTAL-TTHM-SAMPLES entered is less than 4 times the PWF-STATE-NUMBER-OF-PLANTS. The program has changed the value to 4 times the PWF-STATE-NUMBER-OF-PLANTS. If this is not correct, enter the correct values and re-run the job.

MESSAGE: PWF-STATE-TTHM-FREQ
WARNING - TTHM DATA NEEDED BY 11/29/80
REMEDIAL ACTION: This PWF needs to have TTHM data by 11/29/80 or the compliance run will issue sampling violations. Enter the correct TTHM data and re-run the job.

MESSAGE: PWF-STATE-TTHM-FREQ
WARNING - DEFAULT VALUE OF Q USED
REMEDIAL ACTION: The PWF-RECORD was created with a Q in PWF-STATE-TTHM-FREQ. If this is not correct, enter the correct PWF-STATE-TTHM-FREQ and re-run the job.

MESSAGE: PWF-STATE-AIR-TEMPERATURE
WARNING - ELEMENT EXCEEDS MAX
REMEDIAL ACTION: The PWF-RECORD is created with the input PWF-STATE-AIR-TEMPERATURE, but this value is above the maximum allowed temperature and could cause problems elsewhere. Correct the PWF-STATE-AIR-TEMPERATURE and re-run the job.

MESSAGE: PWF-STATE-AIR-TEMPERATURE
WARNING - ELEMENT BELOW MINIMUM
REMEDIAL ACTION: The PWF-RECORD is created with the input PWF-STATE-AIR-TEMPERATURE, but this value is below the minimum allowed temperature and could cause problems elsewhere. Correct the PWF-STATE-AIR-TEMPERATURE and re-run the job.

b. PWSI020 - PWP Selection

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records, SORT Records, and SEL1 and SEL2 Records.

MESSAGE: ERROR - NO REPORT-VALUE SUPPLIED IN PROC CARD
REMEDIAL ACTION: return all options to data entry

MESSAGE: ERROR - PW DATA ELEMENT TABLE TOO LARGE OR MISSING
REMEDIAL ACTION: check to see if DET was available, if not, rerun job. If DET was entered, it was too large and job will require programming change before it can be run successfully.

MESSAGE: ERROR - THE MONTH OR YEAR IN THE VALUE IS INVALID
REMEDIAL ACTION: check for valid date in comparative value, if not, return all options to data entry.

MESSAGE: ERROR - THE MONTH OR DAY IN THE VALUE IS INVALID
REMEDIAL ACTION: check for valid date in comparative value, if not, return all options to data entry.

MESSAGE: ERROR - DECIMAL VALUE TOO LONG OR NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return all options to data entry.

MESSAGE: ERROR - VALUE FIELD IN THE SEL1 NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return all options to data entry.

c. PWSI030 - Condensed Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE

REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS

REMEDIAL ACTION: check for keypunch errors. If none, return input form to data entry to complete form and rerun job.

d. PWSI040 - Production Data Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: check for keypunch errors. If none, return input form to data entry to complete form and rerun job.

e. PWSI050 - State Discretionary Data Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: check for keypunch errors. If none, return input form to data entry to complete form and rerun job.

f. PWSI060 - Comprehensive Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - NO INPUT FILE HAS BEEN SPECIFIED
REMEDIAL ACTION: return all options to data entry.

MESSAGE: ERROR - RESTART TYPE NOT VALID IN OPTIONS RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - RESTART NUMBER IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - TWO RESTART RECORDS SUPPLIED
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - TWO RESTART RECORDS SUPPLIED
REMEDIAL ACTION: return all options to data entry.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: return all options to data entry.

g. PWSI070 - PHF Maintenance

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - OPTIONS TYPE NOT PROC OR SORT RECORD
REMEDIAL ACTION: check for keypunch error, if not, return to data entry.

MESSAGE: ERROR - REPORT OPTION HAS INVALID CODE
REMEDIAL ACTION: check for keypunch error, if not, return to data entry.

MESSAGE: ERROR - PH DATA ELEMENT TABLE WAS NOT PROVIDED
REMEDIAL ACTION: mount Public History DET for use by this program.

MESSAGE: ERROR - PW DATA ELEMENT TABLE WAS NOT PROVIDED
REMEDIAL ACTION: mount PWF DET for use by this program.

MESSAGE: ERROR - PH DATA ELEMENT TABLE EXCEEDS LIMIT
REMEDIAL ACTION: notify programming that the PHF DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - PW DATA ELEMENT TABLE EXCEEDS LIMIT
REMEDIAL ACTION: notify programming that the PWF DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORTING INFORMATION IS NOT PROVIDED
REMEDIAL ACTION: return all options to data entry.

h. PWSI080 - PHF Selection

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records, SORT Records, and SEL1 and SEL2 Records.

MESSAGE: ERROR - NO PH DATA ELEMENT TABLE WAS PROVIDED

REMEDIAL ACTION: mount PWF DET for use by this program.

i. PWSI090 - PHF Purge

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: ERROR - RECORD TYPE NOT PROC RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID PURGE DATE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID REPORT OPT
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

j. PWSI120 - Convert National Inventory

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: REQUESTED STATE NOT ON FILE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - STATE CODE INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

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j.1 PWSI 125 - PWS ID Conversion

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: ERROR - TWO PROC RECORDS SUPPLIED
REMEDIAL ACTION: return both records to data entry and reenter the Processing Options which is correct.

MESSAGE: ERROR - NO PROCESSING OPTION RECORDS WERE PROVIDED
REMEDIAL ACTION: obtain processing options from data entry and rerun job.

MESSAGE: ERROR - PROC TYPE NOT VALID IN OPTION RECORD
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - NO KEY OPTION ENTERED ON PROCESSING OPTION
REMEDIAL ACTION: return option to data entry for correction and use new PROC option to rerun job.

K. PWSI130 - Create PWT

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC records.

MESSAGE: UNCORRECTABLE I/O ERROR - PWT DESTROYED
REMEDIAL ACTION: Several reasons may have caused this error. Check your space parameter and the value of 'W01-RECORDS-PER-TRACK' in copy WSTRKPWT. The contents of the PWT are unpredictable. Recreate the PWT.

MESSAGE: INVALID KEY - PWT DESTROYED
REMEDIAL ACTION: Several reasons may have caused this error. Check your space parameter. If the table was transferred to another disk pack, the contents will be unpredictable. Recreate the PWT.

B. Regulations Subsystem (REGS)

1. General Description

The Regulations Subsystem (REGS) is a mandatory subsystem. The Regulations File (RGF) is a file containing a record for every contaminant that is regulated. Each record indicates if the contaminant is regulated by the Federal Regulations as defined in the Interim Primary Drinking Water Regulation or by State Regulations. Where contaminants such as Bacteriological contaminants are regulated by both State and Federal regulations, State regulations are used for monitoring drinking water quality compliance, and the Federal regulations are used to identify violations that must be reported to EPA. In other words, State regulations take precedence over Federal regulations in determining compliance.

Drinking water quality is determined by comparing the results of laboratory analysis with the requirements of the Interim Primary Drinking Water Regulations. These regulations specify the number of samples required, analysis methods allowed, and contaminant levels permitted. In some instances Federal standards are modifiable by the states (for example, as in 141.27, using alternative analytical techniques). A State may also choose to enforce its own, more stringent standards, in which case, a Public Water System (PWS) may be in violation of the state's standards, but not of the Federal standards. In addition, a state may also grant variances and exemptions from both the Federal and its own standards.

REGS is used by the Water Quality Compliance Subsystem (WAQC) to allow determination of violations by the PWS's.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: REGS.100
DESCRIPTION: This is the PROC option for program module REGS010, RGF Creation. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-There are two Standard Error Processing Options. The first is used to indicate whether or not a special output file of error records will be produced. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transaction or only those fields which are in error should be printed on the error report. The instructions are self-explanatory.

EXHIBIT NO: REGS.101
DESCRIPTION: This form is used to establish regulations for Chemical Sampling of community and non-community water supplies and for different population ranges for Trihalomethanes in program module REGS010.

-The Contaminant ID should be coded as a valid ID for contaminant groups 1, Organic Chemicals, or 2, Inorganic Chemicals, as noted in Appendix B, Code Value Tables, of the Data Element Dictionary.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-The code for the Reason For Monitoring should be selected from the list of valid codes in Appendix A.

-The Chemical Name should be entered whenever possible, but will be generated in the RGF from the Contaminant ID if it is left blank.

-MCL Units should be coded as the abbreviation of the unit of measure used for the MCL, such as MG/L for milligrams per liter.

-The MCL should be entered for the specified contaminant. DO NOT enter the decimal point, code only the number.

-The MCL Decimals is used to specify the number of positions used to the right of where the decimal point would be in the MCL. These two fields are used in combination to give the actual MCL with the decimal point inserted in the proper place.

-To aid in editing sampling data, MSIS requests that Reasonable Bounds be entered to limit the possibility of data entry error. They are to be coded in the same manner as the MCL and MCL Decimals.

-The number of Check Samples will default to that of the Federal Regulations if left blank.

-If this is an Organic Chemical being coded, Seasonal Sampling should be coded.

-If the chemical being coded is Fluoride, the Special Computation should be coded.

-If the chemical being coded is Nitrate, the Maximum Time should be coded showing the number of hours between the first and second sampling if the first sample is found to be in violation.

-For chemicals other than Nitrate, the Period should be coded showing the number of days between the first and second sampling if the first sample is found to be in violation.

-Columns 51 thru 80 differ depending on whether the regulation concerns a community or non-community PWS. (Actually, the only chemical that is monitored for a non-community PWS is Nitrate.) Both a "C1" and "C2" entry should be made when coding community and non-community for the same chemical. For Trihalomethanes, the "C1" card applies to PWSs having a population of 75,000 or more. The "C2" card applies to PWSs having a population in the 10,000 - 74,999 range. Again, both entries should be made when coding the Trihalomethane regulations.

-Additionally, the Federal Regulations say that for all inorganic chemicals other than Nitrate, the State is responsible for establishing sampling frequencies when there is a violation. And for organic chemicals, the State is responsible for establishing sampling frequencies for ground water sources. So, even though the installation tape supplies the Federal Regulations, this form will have to be coded in columns 1 thru 6 and 51 thru 80 for those chemical regulations for w hich the state has discretionary enforcement responsibility.

-The Effective Date should be coded with the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The Years to First Sample field is applicable to community water systems only. The Federal default applies only to inorganic chemicals.

-The Normal Sampling Frequency is expressed in days and will also use the Federal default only for inorganic chemicals.

-The Minimum Sampling Frequency is also expressed in days and must be filled in for State Primary Regulations as mentioned above.

-The Minimum Number of Negative Samples is the number of samples showing no violation that must be taken in succession before the violation can be cleared.

EXHIBIT NO: REGS.102
DESCRIPTION: This form is used to establish regulations for Turbidity Contamination of community and non-community surface water sources in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-Code the MCL expressed in Turbidity Units as established by a monthly average of daily samples. The decimal point is assumed between columns 16 and 17.

-Code the MCL for Consecutive Samples in Turbidity Units as established by an average for a given number of consecutive daily samples. The decimal point is assumed between columns 18 and 19.

-The Number of Consecutive Samples should equal the number of consecutive days used in calculating the average of the previous field.

-Code the Effective Date as the two-digit month under the "M", the two-digit day under "D", and last two digits of the year under the "Y".

-If Turbidity is to be monitored in sources other than surface, code a "Y" in the next field. If any of the above fields are left blank, the Federal default will be used.

-If repeat samples are to be used in the calculation of the monthly average of daily samples, code a "Y" in the next field. If left blank, the default of "Y" will be used.

-Enter the frequency in hours between samples for community and non-community sampling.

-Enter the maximum time in minutes for resampling if the MCL is exceeded. The last three fields will use the Federal default if not coded.

-Enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

EXHIBIT NO: REGS.103
DESCRIPTION: This form is used to establish the population table for the regulations for Bacteriological monitoring of community and non-community water systems in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-When coding the minimum and maximum population, it is necessary to refer to the Federal Regulations, 141.21(b), Population Table. This table will be supplied on the installation tape. The problem lies in coding the State table if the population served is divided in a manner other than that of the Federal Table. The user must keep in mind that if there are to be State Regulations they must be more stringent than the Federal. For example, consider the case where the State population ranges are different. Say that the first range is 25 to 5,000. Notice that the upper limit comes in the Federal range of 4,901 to 5,800 which has a minimum number of 6 samples per month. In order for the State Regulation to be more stringent, the minimum number of samples for the state must be at least 6. Similarly, if the State's second range is 5,000 to 10,000 the minimum number of samples should be at least 11 per month. The number of samples is a direct function of the upper limit of the range in comparison to the Federal Regulations.

EXHIBIT NO: REGS-104

DESCRIPTION: This form is used to establish regulations for Bacteriological Contaminants of community and non-community water supplies in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-Code the Effective Date as two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The Federal Regulation default will be used for most fields on this form. It does not apply to columns 75 thru 78.

-The MCL's are interpreted somewhat differently for each type of analysis method. With the membrane filter method, the MCL is the number of coliform bacteria per 100 ml in any single sample; the monthly MCL is the arithmetic mean of all samples examined per month. Whereas, for the fermentation tube methods, the MCL is expressed as the number of positive portions in a single sample; and the monthly MCL is the maximum number of positive portions as a percent of the total monthly samples.

-The next three fields are the same type of entry for all three methods. The Percent of Samples is an alternate method of analysis where a percentage of the samples must not exceed a certain MCL. Enter the percent to be used for this method. Enter the minimum number of samples required to use the percent method in the next field. Then enter the MCL to be used with the percent method.

-Enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's. This needs to be entered for the four different analysis methods.

-According to Federal Regulations, if a community water supply serving 25 to 1,000 persons has a history of no coliform bacteria and a sanitary survey has shown that the system is supplied solely by a protected ground water source free of sanitary defects, the PWS may waive the monthly sampling frequency and reduce it to a minimum of one sample per quarter. The next two fields address that situation.

-If a single sample is in violation, that is, exceeds 4 coliform bacteria per 100 ml, at least two consecutive daily check samples shall be collected. Additional check samples shall be collected daily or at a frequency established by the state until at least 2 consecutive samples show less than 1 coliform bacteria per 100 ml. This situation is addressed by columns 53 thru 56.

-If the State decides to establish a minimum of greater than two consecutive good samples to clear the violation, column 53 should be coded with the number of consecutive samples the state desires.

-Similarly, the number of consecutive samples should be coded for the next two fields.

-With the approval of the State and a Sanitary Survey, a PWS may substitute the Chlorine Residual Method of analysis for up to 75% of the samples required to be taken. At least four samples per day must be taken in lieu of one regular sample per day. Columns 57 thru 64 address this option.

-The number of samples must be at least four and the maximum percent can be no greater than 75.

-The minimum chlorine level must be no less than 0.2 mg/l and must be entered as one digit and one decimal. The maximum time to retest must be entered in minutes. There is no absolute maximum, but the Federal Regulations state, "preferably within one hour".

-Columns 65 thru 74 address regulations for non-community PWS's.

-The effective date is coded as the two digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-If the sampling will be done seasonally, enter a "Y" in column 71; if not, enter an "N".

-The period is to be coded either "Q" for quarterly or "M" for monthly.

-The number of samples per period is self-explanatory.

EXHIBIT NO: REGS.105
DESCRIPTION: This form is used to establish the air temperature ranges used in the analysis of Fluoride as a contaminant in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; "SS", State Secondary.

-When coding the lower and upper limits, it is necessary to refer to the Federal Regulations, 141.11 (c). This table will be supplied on the installation tape. The problem lies in coding the State table if the temperature ranges are set up in a different manner than that of the Federal Regulations. The user must keep in mind that if there are to be State Regulations, they must be more stringent than the Federal Regulations. In all cases, the Federal default will be used if any of the fields are left blank. For example, let the first range be 50.0 degrees farenheit and below and the second be 50.1 to 60.0. The first range must have a MCL of at least 2.4 mg/l. The second range must have an MCL of at least 2.0 mg/l. The MCL is a direct function of the upper limit of the range in comparison to the Federal Table. In anticipation of conversion to the Metric system, both Farenheit and Celcius temperatures are requested.

-The MCL is recorded assuming the decimal point to be between positions 23 and 24.

-Reasonable bounds are requested to aid in editing input data and to aid in data entry to the MSIS system.

-Enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

EXHIBIT NO: REGS.106
DESCRIPTION: This form is used to establish regulations for Radiological contamination of major Beta emitters in program module REGS010.

-The Regulation Level can only be "FP", Federal Primary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Refer to the list of standard Beta Emitter Contaminant ID codes in Appendix B of the Data Element Dictionary for the proper codes. Note that the Contaminant group number, 4, is preprinted on the form.

-If the Contaminant Name is left blank, the name will be generated by the program from the corresponding code value of the Contaminant ID.

-The annual concentration equivalent is entered in picoCuries per liter assuming the decimal point to be between positions 33 and 34.

-The detection limit is the minimum instrument detection limit expressed in picoCuries per liter. The Federal default will apply to both of the above fields if they are left blank.

-Up to five different types of nuclear facilities may be entered for each Beta emitter. The codes can be found in Appendix B of the Data Element Dictionary.

-Enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

EXHIBIT NO: REGS.107
DESCRIPTION: This form is used to establish regulations for Radiological Contamination of Gross Alpha Radionuclide Contamination in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; "SS", State Secondary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The MCL and Screening Levels are contained in columns 24 thru 29. Enter the Gross Alpha MCL expressed in picoCuries per liter. The decimal point is assumed between columns 25 and 26.

-Maximum Screening Levels are contained in columns 30 thru 35. Enter the screening level without Radium-228 in columns 30 thru 32. The assumed decimal point is between columns 31 and 32. Enter the screening level with Radium-228 in columns 33 thru 35. The assumed decimal point is between columns 34 and 35.

-The Maximum Radium-226 Screening Level is contained in columns 36-41. Enter the screening level for Radium-228 under Radium-226 in columns 36 thru 38. The assumed decimal point is between columns 37 and 38. Enter the screening level for Radium-226 if monitoring is to be done annually in columns 39 thru 41. The assumed decimal point is between columns 40 and 41.

-The Sampling and Analysis requirements are contained in columns 42 thru 51.

-Enter the Number of Consecutive Quarterly Samples that are taken within one compliance period. If it is to be a composite sample, enter the number of consecutive quarters represented by the sample. Enter the Monitoring Period in column 43 expressed in years.

-Enter the Initial Monitoring Period in columns 44 thru 45, expressed in months, for a new PWS water source in a community water system.

-The fraction of MCL is a decimal fraction to be applied against the actual MCL (columns 24 thru 29) when the user is substituting quarterly sampling with a single annual sample. The decimal point is assumed to be before column 46.

-The Monitoring Frequency, if the PWS is in violation, is expressed in months.

-The PWS has the option of reporting an annual composite sample rather than a multiple sample average at the discretion of the State Regulations. Enter an "A" if the PWS's are required to send single sample quarterly results. If all PWS's are required to submit a composite sample, enter a "C" in column 50, otherwise enter a "B", meaning that both types of sampling are allowed.

-If the above regulations are to apply only to community water supplies, enter a "C" in column 51. If they are to apply to non-community water supplies only, enter an "N". If they are to apply to both community and non-community water supplies, enter a "B".

-Enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

EXHIBIT NO: REGS-108
DESCRIPTION: This form is used to establish regulations for Gross Beta Radionuclides Contamination.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary: "SP", State Primary; "SS", State Secondary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The MCL and Screening Levels are included in columns 23 thru 32. The annual MCL dosage expressed in millirems per year shall not exceed 4.0 per Federal Regulations. Assumed decimals are between columns 23 and 24 and between 31 and 32.

-The Screening Levels are expressed in picoCuries per liter. The Tritium screening level which equates to a dosage of 4 millirems/year is 20,000 pCi/liter. The Strontium-90 screening level which equates to a dosage of 4 millirems/year is 8 pCi/liter. These Federal figures will be used as defaults if these fields are not filled in.

-The Maximum Gross Beta Screening Levels are included in columns 33 thru 41. They are divided into levels for PWS's which have no contamination from a nuclear facility and for those PWS's which do have contamination from a nuclear facility. Assumed decimals are between columns 34 and 35 and between columns 37 and 38.

-Additionally, there is a level for those PWS's contaminated by a nuclear facility for Strontium-90 and Cesium-134. Assumed decimal is between columns 40 and 41.

-Sampling and Analysis Requirement follow in columns 42 thru 66. First there are general statistics in columns 42 thru 50.

-Enter the type of PWS to which these regulations should be applied. A "C" represents a community PWS. An "N" represents a non-community PWS. A "B" represents both community and non-community PWS's.

-If the regulations are to apply to those PWS's with ground water sources only, enter a "Y" in column 43. Otherwise, the Federal default of "N" will be used.

-For the type of sampling required enter an "A" if the single samples are required, a "C" if a composite sample is required, or a "B" if both are acceptable.

-Enter the Minimum Population required for annual monitoring.

-Those PWS's which have no contamination caused by nuclear facilities are included in columns 51 thru 54. Enter the Number of Consecutive Quarterly Samples required initially in column 51. If composite sampling is being used, enter the number of quarters represented by the composite.

-Enter the Normal Monitoring Frequency expressed in years in column 52.

-Enter the Monitoring Frequency expressed in months for a PWS which has been in violation.

-The regulations for a PWS which has been contaminated by a nuclear facility are included in columns 55 thru 66. The number of samples per year for Iodine-131 should be the total number of samples required for one analysis period. For example, if five consecutive daily samples are analyzed on a composite basis and composite analysis results are obtained quarterly for one year, then the value entered should be 5 samples x 4 quarters/year = 20. The number should be calculated similarly for Strontium-90 and Tritium.

-Normal Monitoring Frequencies should be expressed in months when not in violation.

-Enter the Total Number of Consecutive Daily Samples required for quarterly reporting of Iodine-131 contamination.

-In column 67, enter the number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

EXHIBIT NO: REGS.109
DESCRIPTION: This PROC option is used with program module REGS020, RGF Report. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: REGS.110
DESCRIPTION: This form is used to establish the Early Notification Table in program module REGS010.

-The Contaminant-ID should be the four-digit identification code of the contaminant to be placed in the table. The valid contaminant ID's are noted in Appendix B, Code Value Tables, of the Data Element Dictionary.

-The Regulation Level is pre-printed on the form as 'EN' for Early Notification Table.

-The Table ID is pre-printed on the form as '4'.

-The Analysis Method is a three-digit identification code to be grouped with the contaminant specified in columns 1-4 for this record. The first digit of both of these fields must be the same. The valid analysis methods are noted in Appendix B, Code Value Tables, of the Data Element Dictionary.

-The Lower Contaminant Level is numeric and indicates the lower value used for comparison to the sample analysis result in the Early Notification of Sample Abnormalities process.

-The Lower Contaminant Decimal is the decimal significance of the Lower Contaminant Level.

-The Basic Contaminant Level is numeric and indicates the basic value used for comparison to the sample analysis result in the Early Notification of Sample Abnormalities process.

-The Basic Contaminant Decimal is the decimal significance of the Basic Contaminant Level.

-The Upper Contaminant Level is numeric and indicates the upper value used for comparison to the sample analysis result in the Early Notification of Sample Abnormalities process.

-The Upper Contaminant Decimal is the decimal significance of the Upper Contaminant Level.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

```
         REGS020                     1 of 1
                                     9/23/76
  RGF Report Module
         SouthWestern Ohio Regional Computer Center
  EXHIBIT REGS.301

                                           MODEL STATE INFORMATION SYSTEM
  REGS020                                      REGULATIONS SUBSYSTEM
  DATE XX/XX/XX                      REGULATIONS REPORT - CHEMICAL CONTAMINANTS                        PAGE 88889

     CONTAMINANT ID         REGULATION/LEVEL             CHEMICAL NAME          REASON FOR MONITORING
     1 9999                 2 XX                         3 XXXXXXXXXXX          4 X
                                                                                         NUMBER OF CHECK SAMPLES
         MCL UNITS          MCL           MCL DECIMALS        REASONABLE BOUNDS          REQUIRED IF REGULAR
                                                        LOWER DECIMALS  UPPER DECIMALS   SAMPLE VIOLATES MCL

         5 XXXXXX        6 888889         7 9          88889    9     88889    9            9
                                                         8      9      10     11           12
        SEASONAL           SPECIAL            MAXIMUM TIME TO INITIATE
        SAMPLING         COMPUTATION          SECOND SAMPLE ANALYSIS IF          PERIOD WITHIN WHICH CHECK
     (ORGANIC ONLY)                         REGULAR SAMPLE IS IN VIOLATION          SAMPLES MUST BE MADE
                                                    (NITRATE ONLY)

           X                 X                        88                              89
          13                14                        15                              16

         PWS              EFFECTIVE        MONITORING REQUIREMENTS       NORMAL                 IF MCL IS VIOLATED
         TYPE               DATE           SOURCE    YEARS TO           SAMPLING       MINIMUM          MINIMUM NUMBER
                                            TYPE     FIRST SAMPLE       FREQUENCY      SAMPLING         OF SUCCESSIVE
                                                                                       FREQUENCY        NEGATIVE SAMPLES

     COMMUNITY            XX/XX/XX         GROUND      9 18             8889 19        8889 20             89 21
                             17            SURFACE     9 22             8889 23        8889 24             89 25

     NON-COMMUNITY        XX/XX/XX         GROUND      9 27             8889 28        8889 29             89 30
                             26            SURFACE     9 31             8889 32        8889 33             89 34
```

EXHIBIT NO: REGS.301 PAGE 1 OF 5

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 1 DATA ELEMENT NAME: RGF-CONTAMINANT-ID
CATALOGUE NO: 041 DESCRIPTION: A four digit number for identifying a contaminant.

FIELD NO: 2 DATA ELEMENT NAME: RGF-CHEM-REGV-LEVEL
CATALOGUE NO: 042 DESCRIPTION: Indicates whether the regulations are State or Federal and if it is a primary or secondary regulation.

FIELD NO: 3 DATA ELEMENT NAME: RGF-CHEM-CONTAM-NAME
CATALOGUE NO: 043 DESCRIPTION: The scientific name of a contaminant.

FIELD NO: 4 DATA ELEMENT NAME: RGF-CHEM-REASON-CODE
CATALOGUE NO: 044 DESCRIPTION: The code indicating the reason for including a chemical as a contaminant in the regulations.

FIELD NO: 5 DATA ELEMENT NAME: RGF-CHEM-MCL-UNITS
CATALOGUE NO: 045 DESCRIPTION: Name of the units used to measure contaminat level.

FIELD NO: 6 DATA ELEMENT NAME: RGF-CHEM-MCL
CATALOGUE NO: 046 DESCRIPTION: The maximum or minimum level defined by State or Federal regulations for each contaminant.

FIELD NO: 7 DATA ELEMENT NAME: RGF-CHEM-MCL-DECIMALS
CATALOGUE NO: 047 DESCRIPTION: Number of decimal places in the applicable MCL.

FIELD NO: 8 DATA ELEMENT NAME: RGF-CHEM-MCL-LOW-LIMIT
CATALOGUE NO: 048 DESCRIPTION: The lowest reasonable value of analysis result.

FIELD NO: 9 DATA ELEMENT NAME: RGF-CHEM-MCL-LOW-DECIMALS
CATALOGUE NO: 049 DESCRIPTION: The number of decimal places in RGF-CHEM-MCL-LOW-LIMIT.

FIELD NO: 10 DATA ELEMENT NAME: RGF-CHEM-MCL-HIGH-LIMIT
CATALOGUE NO: 050 DESCRIPTION: The highest reasonable value of the analysis result.

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 11 DATA ELEMENT NAME: RGF-CHEM-MCL-HIGH-DECIMALS
CATALOGUE NO: 051 DESCRIPTION: The number of decimal places in RGF-CHEM-MCL-HIGH-LIMIT.

FIELD NO: 12 DATA ELEMENT NAME: RGF-CHEM-MCL-CHECK-SAMPLES
CATALOGUE NO: 052 DESCRIPTION: The number of inital check samples required when the chemical MCL is violated.

FIELD NO: 13 DATA ELEMENT NAME: RGF-CHEM-MCL-SEASONAL-CODE
CATALOGUE NO: 053 DESCRIPTION: A flag indicating whether seasonal sampling applies to a contaminant.

FIELD NO: 14 DATA ELEMENT NAME: RGF-CHEM-MCL-SPECIAL-CODE
CATALOGUE NO: 054 DESCRIPTION: Code used to describe special considerations when comparing analysis results to the MCL. Applies to Fluoride only.

FIELD NO: 15 DATA ELEMENT NAME: RGF-CHEM-MCL-MIN-TIME
CATALOGUE NO: 055 DESCRIPTION: The maximum time, expressed in hours, to initiate second sample analysis if regular sample is in violation. Applies to Nitrate only.

FIELD NO: 16 DATA ELEMENT NAME: RGF-CHEM-MCL-CHECK-PERIOD
CATALOGUE NO: 056 DESCRIPTION: The period, expressed in days, during which the initial check samples must be taken if a regular sample is in violation.

FIELD NO: 17 DATA ELEMENT NAME: RGF-CHEM-COM-EFFECTIVE-DATE
CATALOGUE NO: 057 DESCRIPTION: The date on which the regulation became effective.

EXHIBIT NO: REGS.301 PAGE 3 OF 5

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO	CATALOGUE NO	DATA ELEMENT NAME	DESCRIPTION
18	058	RGF-CHEM-COM-GRD-YRS-FST	The number of years during which the first water sample must be taken and analyzed for ground water, Community Water Systems.
19	059	RGF-CHEM-COM-GRD-SAMPLE-FREQ	The sampling frequency, expressed in days for ground water, Community Water Systems.
20	060	RGF-CHEM-COM-GRD-VIOL-FREQ	The sampling frequency, expressed in days, when the chemical MCL is in violation for ground water, Community Water Systems.
21	061	RGF-CHEM-COM-GRD-MIN-NEG	Minimum number of successive negative samples to return to normal frequency when the chemical MCL is in violation for ground water, Community Water Systems.
22	062	RGF-CHEM-COM-SUR-YRS-FST	The number of years during which the first water sample must be taken and analyzed for surface water, Community Water Systems.
23	063	RGF-CHEM-COM-SUR-SAMPLE-FREQ	The sampling frequency for analysis, expressed in days, for surface water, Community Water Systems.
24	064	RGF-CHEM-COM-SUR-VIOL-FREQ	The sampling frequency, expressed in days, when the chemical MCL is violated for surface water, Community Water Systems.

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PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 25 DATA ELEMENT NAME: RGF-CHEM-COM-SUR-MIN-NEG
CATALOGUE NO: 065 DESCRIPTION: The minimum number of successive negative samples to return to normal frequency when the chemical MCL is violated for surface water, Community Water System.

FIELD NO: 26 DATA ELEMENT NAME: RGF-CHEM-NCOM-EFFECTIVE-DATE
CATALOGUE NO: 066 DESCRIPTION: The date on which the regulation becomes effective.

FIELD NO: 27 DATA ELEMENT NAME: RGF-CHEM-NCOM-GRD-YRS-FST
CATALOGUE NO: 067 DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for a ground water, Non-Community Water System.

FIELD NO: 28 DATA ELEMENT NAME: RGF-CHEM-NCOM-GRD-SAMPLE-FREQ
CATALOGUE NO: 068 DESCRIPTION: The sample frequency for analysis, expressed in days, for a ground water, Non-Community Water System.

FIELD NO: 29 DATA ELEMENT NAME: RGF-CHEM-NCOM-GRD-VIOL-FREQ
CATALOGUE NO: 069 DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is violated for a ground water, Non-Community Water System.

FIELD NO: 30 DATA ELEMENT NAME: RGF-CHEM-NCOM-GRD-MIN-NEG
CATALOGUE NO: 070 DESCRIPTION: The minimum number of successive negative samples to return to normal sampling frequency when the MCL is violated for a ground water, Non-Community Water System.

FIELD NO: 31 DATA ELEMENT NAME: RGF-CHEM-NCOM-SUR-YRS-FST
CATALOGUE NO: 071 DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for a surface water, Non-Community Water System.

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PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 32 DATA ELEMENT NAME: RGP-CHEM-NCOM-SUR-SAMPLE-FREQ
CATALOGUE NO: 072 DESCRIPTION: The sampling frequency for analysis, expressed in days for a surface water, Non-Community Water System.

FIELD NO: 33 DATA ELEMENT NAME: RGP-CHEM-NCOM-SUR-VIOL-FREQ
CATALOGUE NO: 073 DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is violated for a surface water, Non-Community Water System.

FIELD NO: 34 DATA ELEMENT NAME: RGP-CHEM-NCOM-SUR-MIN-NEG
CATALOGUE NO: 074 DESCRIPTION: The minimum number of successive negative samples to return to normal frequency when the MCL is violated for surface water, Non-Community Water System.

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RGF Report Module   1 of 1
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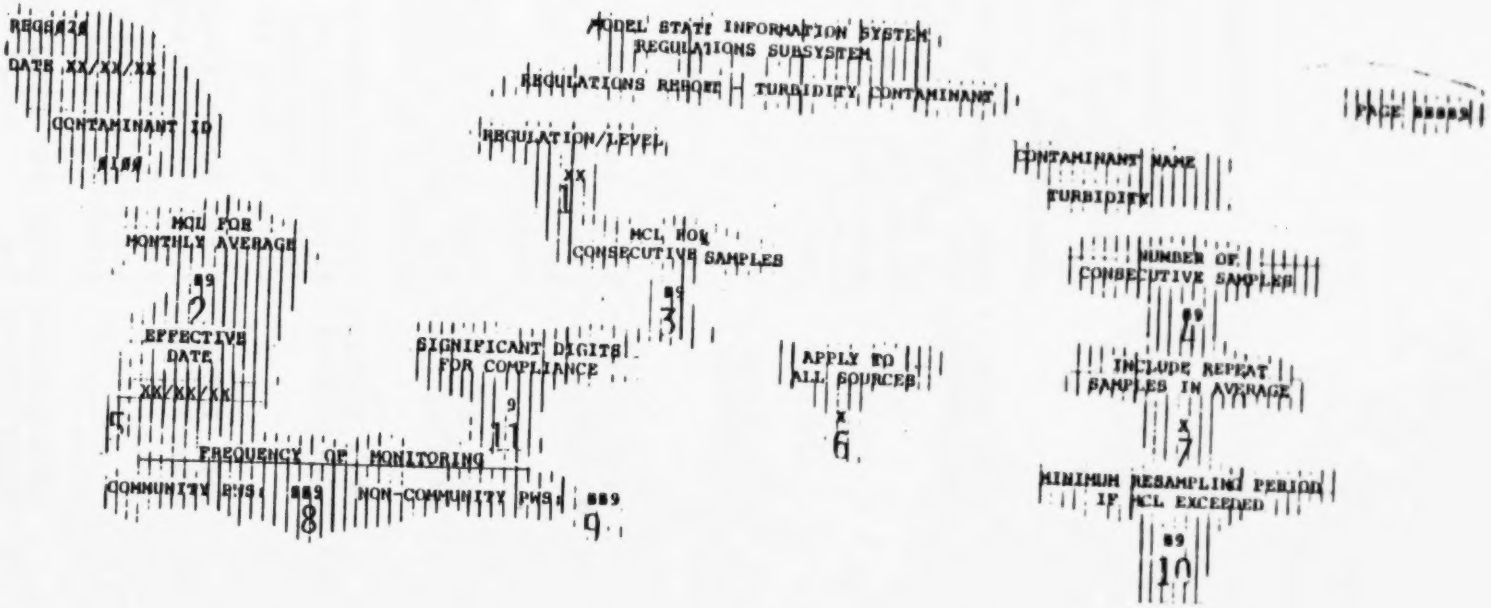
SouthWestern Ohio Regional Computer Center

EXHIBIT REGS.302



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REGS0428                   MODEL STATE INFORMATION SYSTEM
                              REGULATIONS SUBSYSTEM
DATE XX/XX/XX
                      REGULATIONS REPORT - TURBIDITY CONTAMINANT               PAGE ZZZZ9

   CONTAMINANT ID           REGULATION/LEVEL                    CONTAMINANT NAME
       XXXX                        XX                               TURBIDITY
                                   1

       MCL FOR                        MCL FOR                       NUMBER OF
   MONTHLY AVERAGE               CONSECUTIVE SAMPLES          CONSECUTIVE SAMPLES
         Z9                               Z9                            Z9
         2                                3                             4

      EFFECTIVE       SIGNIFICANT DIGITS         APPLY TO          INCLUDE REPEAT
        DATE           FOR COMPLIANCE          ALL SOURCES      SAMPLES IN AVERAGE
      XX/XX/XX               9                     X                    X
  5                          11                    6                    7

     FREQUENCY OF MONITORING                                 MINIMUM RESAMPLING PERIOD
COMMUNITY PWS:  ZZ9   NON-COMMUNITY PWS:  ZZ9                     IF MCL EXCEEDED
                8                         9                             Z9
                                                                        10
```

EXHIBIT NO: REGS.302 PAGE 1 OF 2

PROGRAM NO: REGS020

TITLE: Regulations Report - Turbidity Contaminant

FIELD NO: 1 DATA ELEMENT NAME: RGF-TURB-REGU-LEVEL
CATALOGUE NO: 134 DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2 DATA ELEMENT NAME: RGF-TURB-MONTHLY-MCL
CATALOGUE NO: 136 DESCRIPTION: The MCL for the monthly average of daily samples, expressed in Turbidity Units, used to determine compliance with regulations of turbidity contaminants.

FIELD NO: 3 DATA ELEMENT NAME: RGF-TURB-CONSECUTIVE-MCL
CATALOGUE NO: 137 DESCRIPTION: The MCL for the monthly average of daily samples, expressed in Turbidity Units.

FIELD NO: 4 DATA ELEMENT NAME: RGF-TURB-CONSECUTIVE-SAMPLES
CATALOGUE NO: 138 DESCRIPTION: The number of consecutive days to be included in the moving daily average.

FIELD NO: 5 DATA ELEMENT NAME: RGF-TURB-EFFECTIVE-DATE
CATALOGUE NO: 139 DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 6 DATA ELEMENT NAME: RGF-TURB-ALL-SOURCES
CATALOGUE NO: 140 DESCRIPTION: Flag indicating if turbidity is to be monitored only at PWS's using Surface Water.

FIELD NO: 7 DATA ELEMENT NAME: RGF-TURB-REPEAT-INCLUDED
CATALOGUE NO: 141 DESCRIPTION: A flag indicating if repeat check samples are to be included in the monthly average in place of the original sample.

FIELD NO: 8 DATA ELEMENT NAME: RGF-TURB-COM-SAMPLE-FREQ
CATALOGUE NO: 142 DESCRIPTION: The monitoring frequency expressed in days, for analysis as applied to Turbidity contaminator for community PWS's.

EXHIBIT NO: REGS.302 PAGE 2 OF 2

PROGRAM NO: REGS020

TITLE: Regulations Report - Turbidity Contaminant

FIELD NO: 9 DATA ELEMENT NAME: RGF-TURB-NCOM-SAMPLE-FREQ
CATALOGUE NO: 143 DESCRIPTION: The monitoring frequency, expressed in days, for analysis as applied to Turbidity contaminants for Non-Community PWS's.

FIELD NO: 10 DATA ELEMENT NAME: RGF-TURB-MIN-RESAMPLING-PERIOD
CATALOGUE NO: 144 DESCRIPTION: The minimum resampling period, expressed in hours, if MCL is exceeded in Turbidity samples.

FIELD NO: 11 DATA ELEMENT NAME: RGF-TURB-DEC-SIGNI
CATALOGUE NO: 758 DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

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      RGF REPORT MODULE
        . SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
      EXHIBIT REGS.303


REGS020                                   MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                                REGULATIONS SUBSYSTEM
                        REGULATIONS REPORT - POPULATION TABLE FOR BACTERIOLOGICAL SAMPLING              PAGE ZZZZ9
   CONTAMINANT ID
                              REGULATION/LEVEL                                TABLE ID
      3000
                               1 XX                                              1

        POPULATION LOWER LIMIT          POPULATION UPPER LIMIT          MINIMUM SAMPLES PER MONTH
              ZZZZZZZZ9                       ZZZZZZZZ9                           ZZ9
          2   ZZZZZZZZ9                  3    ZZZZZZZZ9                       4   ZZ9
              ZZZZZZZZ9                       ZZZZZZZZ9                           ZZ9
```

EXHIBIT NO: REGS.303

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PROGRAM NO: REGS020

TITLE: Regulations Report - Population Table for Bacteriological Sampling

FIELD NO: 1
CATALOGUE NO: 128
DATA ELEMENT NAME: RGF-BPOP-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 130
DATA ELEMENT NAME: RGF-BPOP-TBL-FROM-POPULATION
DESCRIPTION: The lower limit of a population size group used when sampling frequency is based on population size.

FIELD NO: 3
CATALOGUE NO: 131
DATA ELEMENT NAME: RGF-BPOP-TBL-TO-POPULATION
DESCRIPTION: The upper limit of a population size group, used when sampling frequency is based on population size.

FIELD NO: 4
CATALOGUE NO: 132
DATA ELEMENT NAME: RGF-BPOP-TBL-SAMPLE-FREQ
DESCRIPTION: The sampling frequency, expressed in days, for a given population range.

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DATE 9/23/76
RGF REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT REGS.304

REGS020
DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM
REGULATIONS REPORT - BACTERIOLOGICAL CONTAMINANT

PAGE ZZZZ9

CONTAMINANT ID
3010

REGULATION/LEVEL
1 XX

CONTAMINANT NAME
COLIFORM

EFFECTIVE DATE
2 XX/XX/XX

ANALYSIS METHOD	UNIT	SINGLE SAMPLE MCL	MONTHLY MCL	PERCENT OF SAMPLES	MINIMUM REQUIRED SAMPLES TO USE PERCENT	MCL WHEN PERCENT IS USED	SIGNIFICANT DIGITS FOR COMPLIANCE
MEMBRANE FILTER	COLIFORM	3 Z9	4 Z9	5 Z9	6 Z9	7 Z9	31 9
FERMENTATION TUBE - 10ML.	POSITIVE TUBES	8 Z9	9 Z9	10 Z9	11 Z9	12 Z9	32 9
FERMENTATION TUBE - 100ML.	POSITIVE TUBES	13 Z9	14 Z9	15 Z9	16 Z9	17 Z9	33 9

REQUIREMENTS FOR WAIVER OF ONE MONTH SAMPLING:

MAXIMUM REQUIRED SAMPLES	SAMPLING PERIOD
18 9	19 9

CHECK SAMPLING REQUIREMENTS IF SINGLE SAMPLE MCL IS VIOLATED:

MINIMUM NUMBER OF CONSECUTIVE DAILY CHECK SAMPLES	MINIMUM NUMBER OF CONSECUTIVE NEGATIVE PORTIONS	MINIMUM NUMBER OF CONSECUTIVE NEGATIVE MEMBRANE FILTERS
20 9	21 9	22 Z9

CHLORINE RESIDUAL METHOD:

NUMBER OF SAMPLES IN LIEU OF ONE REGULAR SAMPLE	MAXIMUM PERCENT OF REGULAR SAMPLES	MINIMUM CHLORINE LEVEL	MAXIMUM TIME TO RETEST CHLORINE LEVEL	SIGNIFICANT DIGITS FOR COMPLIANCE
23 Z9	24 Z9	25 99	26 Z9	34 9

NON-COMMUNITY PWS MONITORING REQUIREMENTS:

EFFECTIVE DATE	SEASONAL SAMPLING	SAMPLING PERIOD	NUMBER OF SAMPLES PER PERIOD
27 XX/XX/XX	28 X	29 X	30 Z9

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EXHIBIT NO: REGS.304 PAGE 1 OF 7

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 1
CATALOGUE NO: 096
DATA ELEMENT NAME: RGF-BACT-REGU-LEVEL
DESCRIPTION: Indicates whether the regulation is a State or Federal regulation and if it is primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 098
DATA ELEMENT NAME: RGF-BACT-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 099
DATA ELEMENT NAME: RGF-BACT-MF-SINGLE-SAMPLE-MCL
DESCRIPTION: The maximum acceptable number of Coliform Bacteria, per 100 milliliters, in a single sample using the Membrane Filter Method.

FIELD NO: 4
CATALOGUE NO: 100
DATA ELEMENT NAME: RGF-BACT-MF-MONTHLY-MCL
DESCRIPTION: The maximum acceptable number of Coliform Bacteria per 100 milliliters, as a mean of all samples examined in a month using the Membrane Filter Method.

FIELD NO: 5
CATALOGUE NO: 101
DATA ELEMENT NAME: RGF-BACT-MF-PERCENT-SAMPLES
DESCRIPTION: The maximum acceptable percent of samples out the total number of samples per month using the Membrane Filter Method and containing a certain number of Coliform Bacteria 100 milliliters.

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EXHIBIT NO: REGS.304

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PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 6
CATALOGUE NO: 102
DATA ELEMENT NAME: RGF-BACT-MF-MIN-REQD-SAMPLES
DESCRIPTION: The minimum number of samples, using the Membrane Filter Method, examined per month required in order to use the Percent of Samples Method (RGP-BACT-MP-PERCENT-SAMPLES) instead of the monthly MCL method (RGP-BACT-MP-MONTHLY-MCL).

FIELD NO: 7
CATALOGUE NO: 103
DATA ELEMENT NAME: RGP-BACT-MF-MCL-FOR-PERCENT
DESCRIPTION: The maximum acceptable number of Coliform Bacteria per 100 milliliters for a specific number of Membrane Filter Method samples (RGP-BACT-MP-MONTHLY-MCL) when less than a specific number of samples (RGP-BACT-MP-MIN-REGD-SAMPLES) are examined per month.

FIELD NO: 8
CATALOGUE NO: 104
DATA ELEMENT NAME: RGF-BACT-FT-SINGLE-SAMPLE-MCL
DESCRIPTION: The maximum acceptable number of positive portions in a single sample using the 10 ml. Fermentation Tube Method.

FIELD NO: 9
CATALOGUE NO: 105
DATA ELEMENT NAME: RGF-BACT-FT-MONTHLY-MCL
DESCRIPTION: The maximum acceptable positve portions as a percent of the total number of samples in any month using the 10 ml. Fermentation Tube Method.

EXHIBIT NO: REGS.304 PAGE 3 OF 7

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 10
CATALOGUE NO: 106
DATA ELEMENT NAME: RGF-BACT-FT-PERCENT-SAMPLES
DESCRIPTION: The maximum acceptable percent of 10 ml. Fermentation Tube Method samples, out of the total number of samples per month, containing a certain number of positive portions.

FIELD NO: 11
CATALOGUE NO: 107
DATA ELEMENT NAME: RGF-BACT-FT-MIN-REQD-SAMPLES
DESCRIPTION: The minimum number of 10 ml. Fermentation Tube Method samples examined (RGF-BACT-FT-PERCENT-SAMPLES) instead of the monthly MCL (RGF-BACT-FT-MONTHLY-MCL).

FIELD NO: 12
CATALOGUE NO: 108
DATA ELEMENT NAME: RGF-BACT-FT-MCL-FOR-PERCENT
DESCRIPTION: When the percent MCL (RGF-BACT-FT-PERCENT-SAMPLES) is used, the maximum acceptable number of positive portions.

FIELD NO: 13
CATALOGUE NO: 109
DATA ELEMENT NAME: RGF-BACT-FH-SINGLE-SAMPLE-MCL
DESCRIPTION: The Single Sample MCL for 100 ml. Fermentation Tube Method; the maximum acceptable number of positive portions in a single sample.

FIELD NO: 14
CATALOGUE NO: 110
DATA ELEMENT NAME: RGF-BACT-FH-MONTHLY-MCL
DESCRIPTION: The positive portions as a percent of the total number of samples in any month, using the 100 ml. Fermentation Tube Method.

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EXHIBIT NO: REGS.304
PAGE 4 OF 7
PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 15
CATALOGUE NO: 111
DATA ELEMENT NAME: RGF-BACT-FM-PERCENT-SAMPLES
DESCRIPTION: The percent of 100 ml. Fermentation Tube Method samples, out of the total number of samples per month, containing a certain number of positive portions.

FIELD NO: 16
CATALOGUE NO: 112
DATA ELEMENT NAME: RGF-BACT-FM-MIN-REQD-SAMPLES
DESCRIPTION: The minimum required number of 100 ml. Fermentation Tube Method samples examined per month in order to use the percent of samples (RGF-BACT-FM-PERCENT-SAMPLES) instead of the monthly MCL (RGF-BACT-FM-MONTHLY-MCL).

FIELD NO: 17
CATALOGUE NO: 113
DATA ELEMENT NAME: RGF-BACT-FM-MCL-FOR-PERCENT
DESCRIPTION: When the percent MCL (RGF-BACT-FM-PERCENT-SAMPLES) is used, the maximum acceptable number of positive portions.

FIELD NO: 18
CATALOGUE NO: 114
DATA ELEMENT NAME: RGF-BACT-REQMNTS-MAX-SAMPLES
DESCRIPTION: The maximum acceptable number of required samples which a PWS may waive for monthly sampling.

FIELD NO: 19
CATALOGUE NO: 115
DATA ELEMENT NAME: RGF-BACT-REQMNTS-SAMPLE-PERIOD
DESCRIPTION: The sampling period, expressed in months, used in lieu of the one month sampling period when the PWS qualifies under RGF-BACT-REQMNTS-MAX-SAMPLES.

FIELD NO: 20
CATALOGUE NO: 116
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-DAILY-SAMPLES
DESCRIPTION: The minimum number of consecutive daily check samples required for Bacteriological sampling when single sample MCL is violated.

EXHIBIT NO: REGS.304 PAGE 5 OF 7

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 21
CATALOGUE NO: 117
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-NEG-PORTIONS
DESCRIPTION: The minimum number of consecutive negative check samples required to halt check sampling when single sample MCL is violated; used for both 10 and 100 ml. Fermatation Tube Method.

FIELD NO: 22
CATALOGUE NO: 118
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-COLIFORM-BACT
DESCRIPTION: The number of consecutive Membrane Filter Method check samples showing less than 1 Coliform Bacteria per 100 milliliters to halt check sampling when a single sample MCL is violated.

FIELD NO: 23
CATALOGUE NO: 119
DATA ELEMENT NAME: RGF-BACT-CHL-SAMPLES-IN-LIEU
DESCRIPTION: The number of samples to be taken for Chlorine Residual in lieu of one sample required for Bacteriological Analysis, when the Chlorine Residual Method is used.

FIELD NO: 24
CATALOGUE NO: 120
DATA ELEMENT NAME: RGF-BACT-CHL-MAX-PERCENT
DESCRIPTION: The maximum percent of samples for Bacteriological Analysis that may be replaced by the equivalent number of samples for analysis by the Chlorine Residual Method, at the ratio indicated in RGF-BACT-CHL-SAMPLES-IN-LIEU.

FIELD NO: 25
CATALOGUE NO: 121
DATA ELEMENT NAME: RGF-BACT-CHL-MIN-CHLORINE-LEVEL
DESCRIPTION: The minimum Chlorine level, expressed as milligrams per liter, to be maintained throughout the PWS; used in the Chlorine Residual Analysis Method.

EXHIBIT NO: REGS.304 PAGE 6 OF 7

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 26 CATALOGUE NO: 122	DATA ELEMENT NAME: RGF-BACT-CHL-MAX-TIME-RETEST DESCRIPTION: The maximum time, expressed in minutes, to retest the Chlorine level, using the Chlorine Residual Analysis Method, for Coliform Bacteria.
FIELD NO: 27 CATALOGUE NO: 123	DATA ELEMENT NAME: RGF-BACT-NCOM-EFFECTIVE-DATE DESCRIPTION: Date on which the regulation became effective.
FIELD NO: 28 CATALOGUE NO: 124	DATA ELEMENT NAME: RGF-BACT-NCOM-SEASONAL-CODE DESCRIPTION: A flag indicating whether or not seasonal sampling applies to a contaminant. If so, MSIS will schedule sampling during season time.
FIELD NO: 29 CATALOGUE NO: 125	DATA ELEMENT NAME: RGF-BACT-NCOM-SAMPLING-PERIOD DESCRIPTION: A flag to define the sampling period for Bacteriological Contaminant monitoring. Applies to non-community PWS's.
FIELD NO: 30 CATALOGUE NO: 126	DATA ELEMENT NAME: RGF-BACT-NCOM-SAMPLE-FREQ DESCRIPTION: The sampling frequency for analysis as applied to a particular contaminant, expressed in days. Used in Bacteriolgical sampling for the non-community PWS.
FIELD NO: 31 CATALOGUE NO: 754	DATA ELEMENT NAME: RGF-BACT-MF-DEC-SIGNI DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's using membrane filter analysis.
FIELD NO: 32 CATALOGUE NO: 755	DATA ELEMENT NAME: RGF-BACT-FT-DEC-SIGNI DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's using fermentation tube - 10ml. analysis.

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PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 33 CATALOGUE NO: 756	DATA ELEMENT NAME: RGF-BACT-FH-DEC-SIGNI DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's using fermentation tube - 100ml. analysis.
FIELD NO: 34 CATALOGUE NO: 757	DATA ELEMENT NAME: RGF-BACT-CHL-DEC-SIGNI DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's using chlorine residual analysis.

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RGF Report Module

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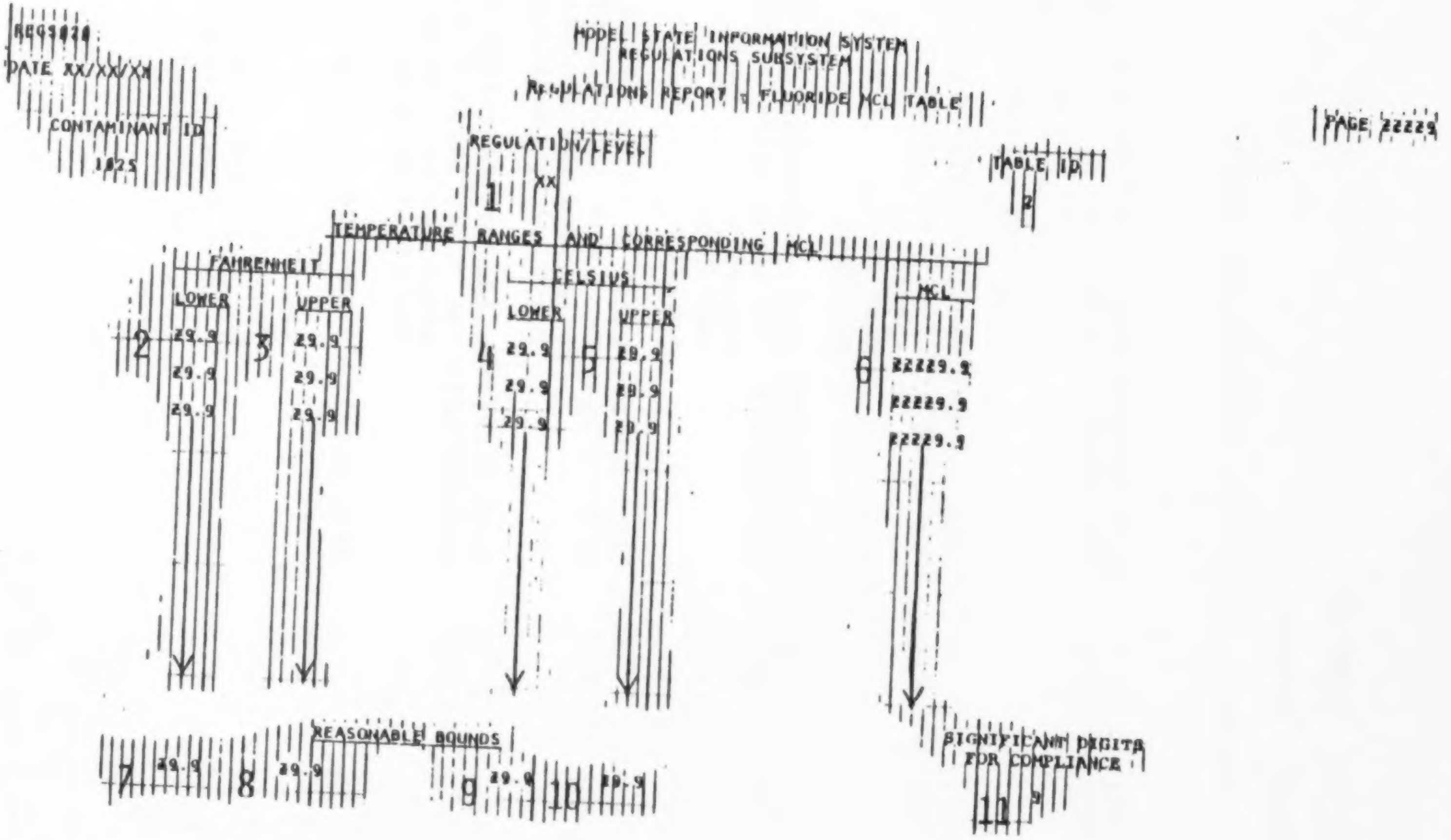
EXHIBIT REGS.305



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REGS020                           MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                        REGULATIONS SUBSYSTEM
                              REGULATIONS REPORT - FLUORIDE MCL TABLE
   CONTAMINANT ID                                                              PAGE ZZZZ9
       1025                  REGULATION/LEVEL                        TABLE ID
                                      XX                                 Z
                    TEMPERATURE  RANGES  AND  CORRESPONDING  MCL
       FAHRENHEIT                            CELSIUS                    MCL
    LOWER      UPPER                    LOWER      UPPER
     Z9.9       Z9.9                     Z9.9       Z9.9            ZZZZ9.9
     Z9.9       Z9.9                     Z9.9       Z9.9            ZZZZ9.9
     Z9.9       Z9.9                     Z9.9       Z9.9            ZZZZ9.9

                  REASONABLE BOUNDS                                SIGNIFICANT DIGITS
     Z9.9       Z9.9            Z9.9       Z9.9                      FOR COMPLIANCE
                                                                           9
```

EXHIBIT NO: REGS.305
PAGE 1 OF 2

PROGRAM NO: REGS020

TITLE: Regulations Report - Fluoride MCL Table

FIELD NO: 1
CATALOGUE NO: 084
DATA ELEMENT NAME: RGF-FLOR-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 086
DATA ELEMENT NAME: RGF-FLOR-TEMP-FAHR-LOW
DESCRIPTION: The lower range of temperature expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 3
CATALOGUE NO: 087
DATA ELEMENT NAME: RGF-FLOR-TEMP-FAHR-HIGH
DESCRIPTION: The upper range of temperature, expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 4
CATALOGUE NO: 088
DATA ELEMENT NAME: RGF-FLOR-TEMP-CELS-LOW
DESCRIPTION: The lower range of temperature, expressed in degress Celsius, for Fluoride sampling.

FIELD NO: 5
CATALOGUE NO: 089
DATA ELEMENT NAME: RGF-FLOR-TEMP-CELS-HIGH
DESCRIPTION: The upper range of temperature, expressed in degress Celsius, for Fluoride sampling.

FIELD NO: 6
CATALOGUE NO: 090
DATA ELEMENT NAME: RGF-FLOR-TEMP-RANGE-MCL
DESCRIPTION: The MCL expressed in milligrams per liter for a corresponding temperature range (RGF-FLOR-TEMP-RANGE-FAHRENHEIT or RGF-FLOR-TEMP-RANGE-CELSIUS) for Fluoride sampling.

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EXHIBIT NO: REGS.305 PAGE 2 OF 2

PROGRAM NO: REGS020

TITLE: Regulatons Report - Fluoride MCL Table

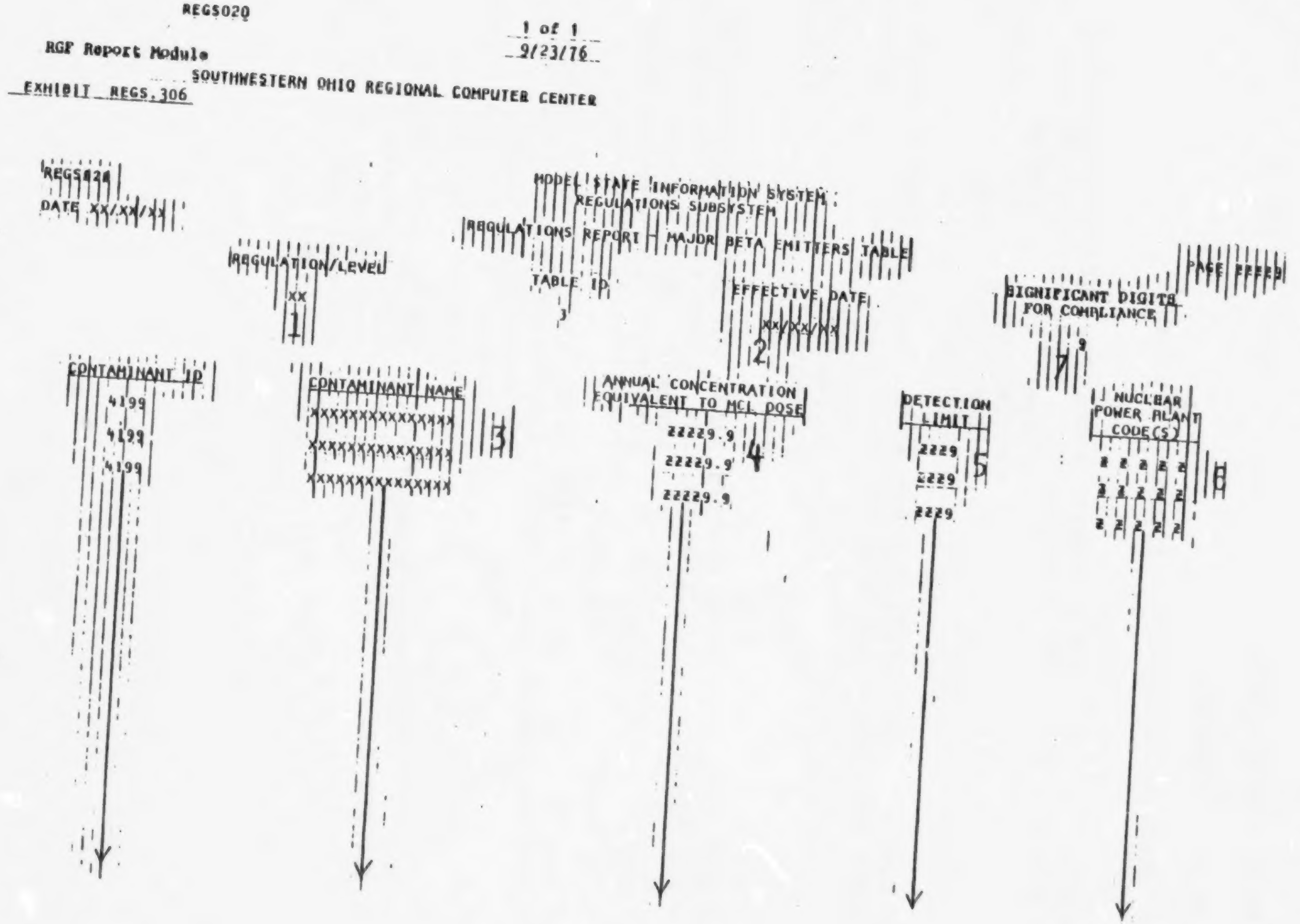
FIELD NO: 7
CATALOGUE NO: 091
DATA ELEMENT NAME: RGF-FLOR-REAS-FAHR-LOW
DESCRIPTION: The lower reasonable bound of temperature ranges, as expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 8
CATALOGUE NO: 092
DATA ELEMENT NAME: RGF-FLOR-REAS-FAHR-HIGH
DESCRIPTION: The upper reasonable bound of temperature ranges, as expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 9
CATALOGUE NO: 093
DATA ELEMENT NAME: RGF-FLOR-REAS-CELS-LOW
DESCRIPTION: The lower reasonable bound for temperature ranges, as expressed in degrees Celsius, for Fluoride sampling.

FIELD NO: 10
CATALOGUE NO: 094
DATA ELEMENT NAME: RGF-FLOR-REAS-CELS-HIGH
DESCRIPTION: The upper reasonable bound of temperature ranges, as expressed in degrees Celsius, for Fluoride sampling.

FIELD NO: 11
CATALOGUE NO: 753
DATA ELEMENT NAME: RGF-FLOR-DEC-SIGNI
DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.



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                REGS020
                                                    1 of 1
  RGF Report Module                                 9/23/76
  EXHIBIT  REGS.306  SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

  REGS424                         MODEL STATE INFORMATION SYSTEM
  DATE XX/XX/XX                     REGULATIONS SUBSYSTEM
                              REGULATIONS REPORT - MAJOR BETA EMITTERS TABLE
                                                                         PAGE ZZZZ9
              REGULATION/LEVEL          TABLE ID       EFFECTIVE DATE
                    XX                     3              XX/XX/XX         SIGNIFICANT DIGITS
                                                                            FOR COMPLIANCE
                                                                                  9

  CONTAMINANT ID   CONTAMINANT NAME    ANNUAL CONCENTRATION   DETECTION     NUCLEAR
                                      EQUIVALENT TO MCL DOSE    LIMIT     POWER PLANT
                                                                            CODE(S)
       4199        XXXXXXXXXXXXXXX          ZZZZ9.9             ZZZ9      Z Z Z Z Z
       4199        XXXXXXXXXXXXXXX          ZZZZ9.9             ZZZ9      Z Z Z Z Z
       4199        XXXXXXXXXXXXXXX          ZZZZ9.9             ZZZ9      Z Z Z Z Z
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EXHIBIT NO: REGS.306 PAGE 1 OF 1

PROGRAM NO: REGS020

TITLE: Regulations Report - Major Beta Emitters Table

FIELD NO: 1
CATALOGUE NO: 076
DATA ELEMENT NAME: RGF-EMIT-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal Regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 078
DATA ELEMENT NAME: RGF-EMIT-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 079
DATA ELEMENT NAME: RGF-EMIT-CONTAM-NAME
DESCRIPTION: The scientific name of the contaminant.

FIELD NO: 4
CATALOGUE NO: 080
DATA ELEMENT NAME: RGF-EMIT-ANNUAL-CONCENT-EQUIV
DESCRIPTION: The average annual concentration of Beta Particle Radioactivity equivalent to a total body or organ MCL dose of 4 millirems per year, expressed in picoCuries per liter.

FIELD NO: 5
CATALOGUE NO: 081
DATA ELEMENT NAME: RGF-EMIT-DETECTION-LIMIT
DESCRIPTION: The detection limit for Beta Radioactivity expressed in picoCuries per liter.

FIELD NO: 6
CATALOGUE NO: 082
DATA ELEMENT NAME: RGF-EMIT-NUCL-POWER-PLANT-CODE
DESCRIPTION: A one-digit code identifying the type of nuclear power plant.

FIELD NO: 7
CATALOGUE NO: 752
DATA ELEMENT NAME: RGF-EMIT-DEC-SIGNI
DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

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        REGS020                                  1 OF 1
RGF REPORT MODULE                                9/23/76
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT REGS.307


REGS020                                   MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                                REGULATIONS SUBSYSTEM
                                  REGULATIONS REPORT - GROSS ALPHA CONTAMINANT
    CONTAMINANT ID                                                                        PAGE ZZZZ9
         4000          REGULATION/LEVEL                  CONTAMINANT NAME          EFFECTIVE DATE
                           1 XX                            GROSS ALPHA             2  XX/XX/XX

     MCL AND SCREENING LEVELS:
                                     MAXIMUM GROSS ALPHA                    MAXIMUM RADIUM-226
        GROSS       COMBINED           SCREENING LEVEL                      SCREENING LEVEL              SIGNIFICANT DIGITS
        ALPHA       RADIUM          WITHOUT           WITH                  FOR           FOR ANNUAL       FOR COMPLIANCE
        MCL         MCL            RADIUM-228       RADIUM-228             RADIUM-228     MONITORING
   3    29.9     4  29.9        5  99.9         6   99.9            7  99.9        8   9.9            16      9

     SAMPLING AND ANALYSIS REQUIREMENTS:
     NUMBER OF CONSECUTIVE                  NORMAL                     INITIAL                    FRACTION OF MCL
       QUARTERLY SAMPLES              MONITORING FREQUENCY        MONITORING PERIOD          AT WHICH TO SUBSTITUTE
   9           9                  10          9                FOR NEW WATER SOURCE          SINGLE ANUAL SAMPLE
                                                            11        29                      12   99
           MONITORING
       FREQUENCY IF PWS            ANNUAL COMPOSITE OR      THESE REGULATIONS APPLY TO
       IS IN VIOLATION          MULTIPLE SAMPLE AVERAGE      COMMUNITY, NON-COMMUNITY
     13    29                          REQUIRED                       OR BOTH
                                    14    X                    15       X
```

EXHIBIT NO: REGS.307 PAGE 1 OF 3

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 1
CATALOGUE NO: 002
DATA ELEMENT NAME: RGF-ALPHA-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 004
DATA ELEMENT NAME: RGF-ALPHA-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 005
DATA ELEMENT NAME: RGF-ALFA-MCL-GROSS-ALPHA
DESCRIPTION: MCL for Gross Alpha Analysis Method for Radiological sampling. Quantity expressed in picoCuries per liter.

FIELD NO: 4
CATALOGUE NO: 006
DATA ELEMENT NAME: RGF-ALFA-MCL-COMBINED-RADIUM
DESCRIPTION: Combined MCL for Radium 226 and Radium 228 for analysis of Radiological samples. Quantity expressed in picoCuries per liter.

FIELD NO: 5
CATALOGUE NO: 007
DATA ELEMENT NAME: RGF-ALFA-MAX-GA-WITHOUT-R228
DESCRIPTION: Maximum Gross Alpha Particle Radioactivity screening level, without Radium 228. Quantity expressed in picoCuries per liter.

FIELD NO: 6
CATALOGUE NO: 008
DATA ELEMENT NAME: RGF-ALFA-MAX-GA-WITH-R228
DESCRIPTION: Maximum Gross Alpha Particle Radioactivity screening level, with Radium 228. Quantity expressed in picoCuries per liter.

EXHIBIT NO: REGS.307 PAGE 2 OF 3

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 7
CATALOGUE NO: 009
DATA ELEMENT NAME: RGF-ALFA-MAX-R226-FOR-R228
DESCRIPTION: Maximum Radium 226, radioactivity screening level for Radium 228. Expressed in picoCuries per liter.

FIELD NO: 8
CATALOGUE NO: 010
DATA ELEMENT NAME: RGF-ALFA-MAX-R226-ANNUAL-MONIT
DESCRIPTION: Maximum Radium 226 radioactivity screening level for Annual Monitoring. Expressed in picoCuries per liter.

FIELD NO: 9
CATALOGUE NO: 011
DATA ELEMENT NAME: RGF-ALFA-NUM-SAMPLES-PER-YEAR
DESCRIPTION: The number of samples per year for Gross Alpha Particle Radioactivity sampling.*

FIELD NO: 10
CATALOGUE NO: 012
DATA ELEMENT NAME: RGF-ALFA-MIN-NORM-MONITOR-FREQ
DESCRIPTION: Minimum normal monitoring frequency for Gross Alpha Radioactivity Analysis, expressed in years.*

FIELD NO: 11
CATALOGUE NO: 013
DATA ELEMENT NAME: RGF-ALFA-INITL-MONITOR-PERIOD
DESCRIPTION: Initial monitoring period for new water sources, for Gross Alpha Particle Radioactivity, expressed in months.

FIELD NO: 12
CATALOGUE NO: 014
DATA ELEMENT NAME: RGF-ALFA-FRACTION-MCL-SUBSTITU
DESCRIPTION: The fraction of MCL, expressed in decimal form, below which analysis of a single annual sample may be substituted for the quarterly sampling.*

* Applies to community water systems only.

EXHIBIT NO: REGS.307 PAGE 3 OF 3

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 13 DATA ELEMENT NAME: RGF-ALFA-MIN-VIOL-MONITOR-FREQ
CATALOGUE NO: 015 DESCRIPTION: Minimum monitoring frequency expressed in months, if the PWS is in violation of Gross Alpha Radioactivity requirements.*

FIELD NO: 14 DATA ELEMENT NAME: RGF-ALFA-ANNUAL-COMP-4-SAMPLE
CATALOGUE NO: 016 DESCRIPTION: Indicates whether an annual composite sample, a four quarterly sample average, or both is acceptable for monitoring Gross Alpha Radioactivity. Applies to community water system only.

FIELD NO: 15 DATA ELEMENT NAME: RGF-ALFA-COM-NONCOMM-BOTH
CATALOGUE NO: 017 DESCRIPTION: Indicates whether the regulation applies to community water systems, non-community water systems, or both.

FIELD NO: 16 DATA ELEMENT NAME: RGF-ALFA-DEC-SIGNI
CATALOGUE NO: 750 DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

* Applies to community water systems only.

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              REGS020
                                          1 OF 1
      RGF REPORT MODULE                   9/23/76
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
      EXHIBIT REGS.308

REGS020                                  MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                                REGULATIONS SUBSYSTEM
                                    REGULATIONS REPORT - GROSS BETA CONTAMINANT
  CONTAMINANT ID                                                                       PAGE ZZZZ9
                       REGULATION/LEVEL                 CONTAMINANT NAME
     4108                                                                     EFFECTIVE DATE
                        1  XX                               GROSS BETA
 MCL AND SCREENING LEVELS:                                                   2  XX/XX/XX

   MAN-MADE                                               MAXIMUM GROSS BETA SCREENING LEVELS
 RADIONUCLIDE     TRITIUM     STRONTIUM-90     FOR MAJOR BETA       FOR MAJOR BETA      FOR STRONTIUM-89 AND
  ANNUAL MCL     SCREENING     SCREENING       EMMITTERS - NO      EMITTERS - WATERS    CESIUM-134 - WATERS          SIGNIFICANT
    DOSAGE         LEVEL         LEVEL        NUCLEAR FACILITY    CONTAMINATED BY A    CONTAMINATED BY A           DIGITS FOR
                                               CONTAMINATION       NUCLEAR FACILITY     NUCLEAR FACILITY           COMPLIANCE
3   9.9         4  ZZZZ9      5  Z9.9        6   Z9.9            7   Z9.9             8   Z9.9                     22   9

    SAMPLING AND ANALYSIS REQUIREMENTS:
     THESE REGULATIONS APPLY TO
      COMMUNITY, NON-COMMUNITY          REQUIRED MONITORING          COMPOSITE OR
            OR BOTH                   OF GROUND WATER SOURCES      SAMPLE AVERAGE        MINIMUM POPULATION
     9        X                                                      REQUIRED               FOR REQUIRED
                                       10     X                                           ANNUAL MONITORING
      NO NUCLEAR FACILITY CONTAMINATION:                           11     X               12   ZZZZZ9
                INITIAL
           NUMBER OF SAMPLES                                          MONITORING
               PER YEAR                      NORMAL               FREQUENCY IF PWS
    13           9                    MONITORING FREQUENCY         IS IN VIOLATION
                                       14     9                   15     Z9
      WATERS CONTAMINATED BY A NUCLEAR FACILITY:
          NUMBER OF SAMPLES                                          MONITORING
              PER YEAR                      NORMAL               FREQUENCY IF PWS      IODINE-131 CONSECUTIVE
                 STRONTIUM-90         MONITORING FREQUENCY        IS IN VIOLATION      DAILY SAMPLES REQUIRED
      IODINE-131  AND TRITIUM     IODINE-131   STRONTIUM-90                                 PER QUARTER
                                               AND TRITIUM
         Z9          Z9              Z9           Z9                  Z9                        Z9
         16          17              18           19                  20                        21
```

EXHIBIT NO: REGS.308 PAGE 1 OF 4

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 1
CATALOGUE NO: 019
DATA ELEMENT NAME: RGF-BETA-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 021
DATA ELEMENT NAME: RGF-BETA-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 022
DATA ELEMENT NAME: RGF-BETA-MCL-ANNUAL-DOSAGE
DESCRIPTION: The minimum annual average dose equivalent of Gross Beta Radioactivity expressed in millirems per year.*

FIELD NO: 4
CATALOGUE NO: 023
DATA ELEMENT NAME: RGF-BETA-TRITIUM-SCREENING
DESCRIPTION: Maximum average annual concentration of Tritium Beta Particle activity for screening levels, expressed in picoCuries per liter.*

FIELD NO: 5
CATALOGUE NO: 024
DATA ELEMENT NAME: RGF-BETA-STRONTIUM90-SCREENING
DESCRIPTION: Maximum average annual concentration of Beta Particle activity for screening levels, expressed in picoCuries per liter.*

FIELD NO: 6
CATALOGUE NO: 025
DATA ELEMENT NAME: RGF-BETA-MAJ-BETA-EM-NO-NUCL
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for major Beta Emitters with no contamination by effluents from nuclear facilities. Expressed in picoCuries per liter.*

* Applies to community water systems only.

EXHIBIT NO: REGS.308
PAGE 2 OF 4
PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 7
CATALOGUE NO: 026
DATA ELEMENT NAME: RGF-BETA-MAJ-BETA-EM-CON-NUCL
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for major Beta Emitters for waters contaminated by effluents from nuclear facilities. Expressed in picoCuries per liter.*

FIELD NO: 8
CATALOGUE NO: 027
DATA ELEMENT NAME:RGF-BETA-STRON89-CES134-CON-NU
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for Strontium - 89 and Cesium 134 for waters contaminated by effluents from nuclear facilities. Expressed in picoCuries per liter.*

FIELD NO: 9
CATALOGUE NO: 028
DATA ELEMENT NAME:RGF-BETA-COM-NONCOMM-BOTH
DESCRIPTION: Indicates whether the regulations apply to community water systems, non-community water systems, or both.

FIELD NO: 10
CATALOGUE NO: 029
DATA ELEMENT NAME: RGF-BETA-MONIT-GRD-INTR-REQD
DESCRIPTION: Indicates if monitoring of ground water sources is required for Gross Beta Radioactivity Analysis.*

FIELD NO: 11
CATALOGUE NO: 030
DATA ELEMENT NAME: RGF-BETA-AVERAGE-COMPOS-SAMPLE
DESCRIPTION: Indicates whether a sample average, a composite sample, or both is acceptable for monitoring Gross Beta Radioactivity.*

* Applied to community water systems only.

EXHIBIT NO: REGS.308

PAGE 3 OF 4

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 12 CATALOGUE NO: 031	DATA ELEMENT NAME: RGF-BETA-MIN-POPULATION-ANNUAL DESCRIPTION: The minimum population served by a community water system for requiring annual monitoring for Beta Particle Radioactivity.
FIELD NO: 13 CATALOGUE NO: 032	DATA ELEMENT NAME: RGF-BETA-N-NUM-SAMPLES-YEAR DESCRIPTION: The number of samples per year for Gross Beta Particle Radioactivity sampling, for water not contaminated by effluents from nuclear facilities.*
FIELD NO: 14 CATALOGUE NO: 033	DATA ELEMENT NAME: RGF-BETA-N-NORM-MONIT-FREQ DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis, expressed in years, for water not contaminated by effluents from a nuclear facility.*
FIELD NO: 15 CATALOGUE NO: 034	DATA ELEMENT NAME: RGF-BETA-N-VIOL-MONIT-FREQ DESCRIPTION: Monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months, when the PWS is in violation.
FIELD NO: 16 CATALOGUE NO: 035	DATA ELEMENT NAME: RGF-BETA-C-NUM-IODINE-SAMPLES DESCRIPTION: The number of samples per year for Gross Beta Radioactivity sampling, for water contaminated by effluents from nuclear facilities, for Iodine - 131 sampling.*

* Applies to community water systems only.

EXHIBIT NO: REGS.308 PAGE 4 OF 4

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 17 CATALOGUE NO: 036	DATA ELEMENT NAME: RGP-BETA-C-NUM-STRONT-SAMPLES DESCRIPTION: The number of samples per year for Gross Beta Radioactivity sampling for waters contaminated by effluents from nuclear facilities, for Strontium - 90 and Tritium sampling.*
FIELD NO: 18 CATALOGUE NO: 037	DATA ELEMENT NAME: RGP-BETA-C-IODINE-MONIT-FREQ DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months for waters contaminated by effluents from nuclear facilities for Iodine - 131 sampling.*
FIELD NO: 19 CATALOGUE NO: 038	DATA ELEMENT NAME: RGP-BETA-C-STRONT-MONIT-FREQ DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis expressed in months, for Strontium - 90 and Tritium sampling.*
FIELD NO: 20 CATALOGUE NO: 039	DATA ELEMENT NAME: RGP-BETA-C-VIOL-MONIT-FREQ DESCRIPTION: Monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months, when the PWS effluents from nuclear facilities.*
FIELD NO: 21 CATALOGUE NO: 040	DATA ELEMENT NAME: RGP-BETA-C-IODINE131-CONS-SPL DESCRIPTION: The number of consecutive daily samples of Iodine - 131 required each quarter for Gross Beta Analysis for water contaminated by effluents from nuclear facilities.*
FIELD NO: 22 CATALOGUE NO: 751	DATA ELEMENT NAME: RGF-BETA-DEC-SIGNI DESCRIPTION: The number of digits to be used in decimal rounding of the computed averages when comparing with regulated MCL's.

* Applies to community water systems only.

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        REGS020                                1 of 1
RGF Report Module                              9/30/81
          University of Cincinnati Computing Center
EXHIBIT - REGS.309

REGS020 01.04                           MODEL STATE INFORMATION SYSTEM
DATE 09/30/81                               REGULATIONS SUBSYSTEM                                          REGS.309
                                  REGULATIONS REPORT - EARLY NOTIFICATION TABLE
                             REGULATION LEVEL                                                              PAGE     1
                                                                           TABLE ID
                                   XX 1
                                                                              4
   CONTAMINANT                                          ANALYSIS     CONTAMINANT      CONTAMINANT      CONTAMINANT
2      ID     3 CONTAMINANT NAME                    4    METHOD   5  LOWER LEVEL   6  BASIC LEVEL   7  UPPER LEVEL

      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
      XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXX        XXXXX.XXXXX      XXXXX.XXXXX      XXXXX.XXXXX
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EXHIBIT NO. REGS.309

Page 1 of 1

PROGRAM NO: REGS020

TITLE: Regulations Report - Early Notification Tables

FIELD NO: 1 DATA ELEMENT NAME: RGF-ENT-REG-LEVEL
CATALOGUE NO: 760 DESCRIPTION: Indicates that this applies to the Early Notification Table.

FIELD NO: 2 DATA ELEMENT NAME: RGF-ENT-CONTAMINANT-ID
CATALOGUE NO: 759 DESCRIPTION: A four-digit code for identification of a contaminant.

FIELD NO: 3 DATA ELEMENT NAME: RGF-ENT-CONTAM-NAME
CATALOGUE NO: 769 DESCRIPTION: The scientific name of the contaminant.

FIELD NO: 4 DATA ELEMENT NAME: RGF-ENT-ANALYSIS-METHOD
CATALOTUE NO: 762 DESCRIPTION: A three-digit code that designates the type of analysis used.

FIELD NO: 5 DATA ELEMENT NAME: RGF-ENT-LC-LEVEL
CATALOGUE NO: 763 DESCRIPTION: The lower limit of the contaminant level to be compared with analysis results from sample records.

FIELD NO: 6 DATA ELEMENT NAME: RGF-ENT-BC-LEVEL
CATALOGUE NO: 765 DESCRIPTION: The contaminant level most frequently compared with analysis results from sample records.

FIELD NO: 7 DATA ELEMENT NAME: RGF-ENT-UC-LEVEL
CATALOGUE NO: 767 DESCRIPTION: The upper limit of the contaminant level to be compared with analysis results from sample records.

Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. REGS010 - Regulations File Creation

MESSAGE: ERROR - NO PROCESSING OPTION CARDS WERE PROVIDED
REMEDIAL ACTION: obtain processing options cards from data entry and rerun job.

MESSAGE: ERROR - RGI-PROC-ID NOT EQUAL TO PROC
REMEDIAL ACTION: this means that the options card did not begin with 'PROC'. Check for keypunch error and rerun job.

MESSAGE: ERROR - PROC CARD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - RGI-PROC-OUTPUT NOT EQUAL TO Y OR N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - RGI-PROC-FIELD-SELECT NOT EQUAL TO N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - CVT FILE IS MISSING
REMEDIAL ACTION: mount CVT file and rerun job.

MESSAGE: ERROR - CVT-RG-FILE IS MISSING
REMEDIAL ACTION: mount REGS CVT file and rerun job.

b. REGS020 - Regulations File Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: ERROR - POPULATION TABLE CONTAINS OVER 200 ELEMENTS
REMEDIAL ACTION: If all entries are desired, the program must be changed to accept them all.

MESSAGE: ERROR - FLUORIDE TABLE CONTAINS OVER 40 ELEMENTS
REMEDIAL ACTION: Notify programming that the table has exceeded program capacity and the program must be changed to accommodate a larger table.

MESSAGE: ERROR - EMITTERS TABLE CONTAINS OVER 50 ELEMENTS
REMEDIAL ACTION: Notify programming that the table has exceeded program capacity and the program must be changed to accommodate a larger table.

MESSAGE: ERROR - NEW REGS FILE NOT CREATED - OLD FILE LOST
REMEDIAL ACTION: Correct errors in regulations input transactions and resubmit the job. This message will continue to appear until the transactions are error free and the new regulations file is created.

MESSAGE: ERROR - ENT TABLE CONTAINS OVER 250 ELEMENTS
**** CONTACT MSIS USER SUPPORT FOR ASSISTANCE ****
REMEDIAL ACTION: Notify MSIS User Support that the Early Notification Table has exceeded the program capacity and the program must be changed to accomodate a larger table.

C. Water Quality Compliance Subsystem (WAQC)

1. General Description

The Water Quality Compliance Subsystem (WAQC) is a mandatory subsystem which is designed to monitor the quality of the drinking water supplied to the public. Two levels of PWS compliance with the Safe Drinking Water Act may be defined. The first, or primary level of compliance is achieved by using those treatment, storage, and distribution methods needed to supply safe drinking water. A secondary compliance level is achieved by monitoring the quality of the drinking water being supplied to the public. This is a more indirect level and, therefore, less desirable method of detecting problems. Primary compliance actions are designed to prevent problems before they arise; secondary compliance activities are designed to identify problems and correct them after they have arisen.

Primary compliance can be controlled by a state in two ways: by a permit program for new PWS's or by periodic sanitary surveys. A permit program is essentially a sanitary engineering task. The PWSI Subsystem will be used to maintain most data elements related to facilities. The Sanitary Survey Subsystem is used to schedule inspections of PWS facilities and thus provides a second way of controlling basic compliance.

Secondary compliance is accomplished by monitoring the sampling and analysis of finished water. The WAQC Subsystem is designed to provide the means for this monitoring process.

There are eight requirements in the Primary Drinking Water Regulations that a PWS could violate:

(1) Maximum Contaminant Level (MCL).

(2) Sampling requirements: number, frequency, and methodology;

(3) Check sampling;

(4) State notification;

(5) Public notification;

(6) Treatment techniques;

(7) Violation of compliance schedule under a variance or exemption;

(8) Record Keeping.

The main purpose of the WAQC Subsystem is to identify violations of the first three of these regulatory requirements. In this way, the Water Quality Compliance Subsystem compliments the PWSI Subsystem and the Sanitary Survey (SRVY) Subsystem by providing data management for tracing non-compliance with the Safe Drinking Water Act.

Secondary compliance can be further classified as compliance with the Federal Interim Primary Drinking Water Regulations or compliance with the state's own standards. There is a need to identify both, and also to indicate if non-compliance is temporarily overruled by variances or exemptions. The Water Quality Compliance Subsystem responds to this need by using the Regulations File (RGF) and the Public Water File (PWF).

How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: WAQC.100

DESCRIPTION: This PROC option contains a date which is used in the report heading created by program module WAQC210.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The instructions are self-explanatory.

EXHIBIT NO: WAQC.101

DESCRIPTION: This document is the Laboratory Table Input Form used to create the Laboratory Table File (LBT) in WAQC210.

-The LAB ID is the five digit Laboratory Identification Code.

-The OWNER TYPE is a one digit code which can be found in Appendix B of the Data Element Dictionary.

-LABORATORY NAME is a thirty character field in which the name of the laboratory must be entered starting in the left most position.

-The EXPIRATION DATE is the authorized expiration date of the laboratory for performing water sample analysis. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: WAQC.102

DESCRIPTION: This document is the Laboratory Table Input Form used to create the analysis method information on the laboratory table in WAQC210.

-LAB ID is the five digit Laboratory Identification Code.

-CONTAMINANT GROUP is a one digit field. Enter a "0" for Turbidity, a "1" for Inorganic Chemicals, a "2" for Organic Chemicals, a "3" for Microbiological, a "4" for Radionuclide, or a "9" for other.

-AUTHORIZED ANALYSIS METHOD is the three digit analysis method code for the contaminant group entered above that is authorized for the laboratory. The analysis method must be present on the Code Value Table (CVT) and the first digit must be the same as the number entered in column 6.

-CARD CODE is preprinted on the form.

EXHIBIT NO: WAQC.103

DESCRIPTION: This PROC option contains a date which is used on the reports created by WAQC010 and WAQC020.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

EXHIBIT NO: WAQC.104

DESCRIPTION: Refer to section IV, User Defined Report Sequencing, in this manual for complete instructions. This form will be used with program module WAQC011, WAQC012, WAQC016, WAQC017, WAQC018, WAQC019, WAQC040, WAQC041, WAQC045, WAQC050, WAQC051, WAQC060, WAQC061, WAQC065, WAQC070, WAQC080, WAQC090, WAQC110, WAQC111, WAQC112, and WAQC113.

EXHIBIT NO: WAQC.105

DESCRIPTION: This document is the Sample Deletion transactions form used to delete records from the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven-digit Identification Code of the Public Water System to which the sample applied. The Identification Code must be on both the Public Water Table (PWT) and the Periodic Sample File (PSF) in order for the record to be deleted.

-CONTAMINANT ID is a four-digit Contaminant Identification Code of the sample record to be deleted. The code must be on both the Code Value Table (CVT) and the Periodic Sample File (PSF) in order for the record to be deleted.

-The name of the contaminant bearing the Contaminant ID Code may be entered on the form under CONTAMINANT NAME.

-The ANALYSIS METHOD is a three-digit code of the analysis method of the sample record to be deleted. The first digit must be the same as the first digit of Contaminant ID and the analysis method must be on the Periodic Sample File (PSF) in order for the record to be deleted.

-The SAMPLE KEY is the ten-digit sample key of the sample record to be deleted.

EXHIBIT NO: WAQC.106
DESCRIPTION: This document is The Chemical or Radiological Analysis Input Form used to enter sample data for Chemical and Radiological contaminants into the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven-digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-The name and mailing address of the Public Water System may be entered on the form under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant Identification code of the particular chemical or radiological contaminant for which the sample was analyzed. The code must be on the Code Value Table (CVT) and the first digit must be a "1" for inorganic chemical contaminants, a "2" for organic chemical contaminants, and a "4" for radionuclide contaminants.

-The name of the contaminant bearing the Contaminant ID Code may be entered under CONTAMINANT NAME.

-ANALYSIS METHOD is a three digit code of the analysis method used in analyzing the sample for a particular contaminant. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory that is performing the analysis. The first digit must match the first digit of the Contaminant ID.

-The ANALYSIS RESULT is the result of the analysis of the sample in milligrams/liter for chemical samples or picocuries/liter for radiological samples. Only the significant digits are entered. If the result is less than the minimum detectable limit, the minimum detectable limit is entered unless this requirement is waived.

-ANALYSIS DECIMALS is the number of decimal places in the Analysis Result.

-ANALYSIS DATE is the date the analysis was performed. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LOCATION CODE is a unique code used to tie a check sample back to a regular sample for which it was taken. It is necessary only for regular samples for which check samples will be taken and only for check samples.

-The name of the location at which the sample was taken may be entered under LOCATION NAME.

-SAMPLE DATE is the date on which the sample was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "M", "R", "E" or "S" according to the sample type key on the input form. Only "C", "M", "E" and "D" sample types are processed in compliance.

-SAMPLE TIME is the time the sample was taken based on a 24-hour clock.

-LAB ID is the identification code of the Laboratory analyzing the sample. It must be a Laboratory present on the Laboratory Table (LBT) whose authorized expiration date has not passed.

-The name of the Laboratory bearing the Identification Code may be entered under LAB NAME.

-The name or initials of the individual performing the sample analysis for the particular contaminant specified under CONTAMINANT ID or collecting the sample can be entered under SAMPLE ANALYZED BY or SAMPLE COLLECTED BY respectively.

EXHIBIT NO: WAQC.107 (WAQC.401)

DESCRIPTION: This document is the Bacteriological or Turbidity Analysis Input Form used to enter sample data for Bacteriological and Turbidity contaminants into the Periodic Sample File (PSF) in WAQC010.

-The PWS ID is a seven-digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-The name and mailing address of the Public Water System may be entered under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant Identification Code of the bacteriological or turbidity contaminant for which the sample was analyzed. The code must be on the Code Value Table (CVT) and the first digit must be a "0" for turbidity contaminants and "3" for bacteriological contaminants.

-The name of contaminant bearing the Contaminant ID Code may be entered on the CONTAMINANT NAME.

-ANALYSIS METHOD is a three digit code of the analysis method used in analyzing the sample. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory that is performing the analysis. The first digit must match the first digit of Contaminant ID.

-The ANALYSIS RESULT is the result of the analysis of the sample expressed in the unit appropraite for the analysis method such as number of coliform for membrane filter, number of positive tubes for fermentation tube, milligrams/liter for chlorine residual, and number of turbidity units for turbidity samples.

-ANALYSIS DECIMALS is the number of decimal places in the Analysis Result for turbidity and chlorine residual samples. Enter a "0" for bacteriological samples using membrane filter or fermentation tube method.

-ANALYSIS DATE is the date the analysis was performed or the day the analysis result was obtained if the analysis spans more than one day. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LOCATION CODE is a unique code used to tie a check sample back to a regular sample for which it was taken. It is necessary only for regular samples for which check samples will be taken and only for check samples.

-SAMPLE DATE is the date on which the sample was taken. Code the two-digit month under "M", the two-digit day under "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", or "S" according to the sample type key on the input form.

-SAMPLE TIME is the time the sample was taken based on a 24-hour clock.

-LAB ID is the identification code of the Laboratory analyzing the sample. It must be entered for membrane filter and fermentation tube sample analyses. It must be a Laboratory present on the Laboratory Table (LBT) wnose authorized expiration date has not passed for membrane filter and fermentation tube sample analyses. It is not necessary for turbidity or chlorine residual samples.

-The name of the Laboratory bearing the Identification Code may entered under LAB NAME.

-SAMPLE LOCATION is the name of a particular location where a bacteriological or turbidity sample was taken. Once a particular location has been given a name, it should be referred to by that name at all times.

-COMMENTS is a field used for specific information about a particular bacteriological or turbidity sample to be used at the users discretion.

EXHIBIT NO: WAQC.108 (WAQC.402)
DESCRIPTION: This document is the Bacteriological or Turbidity Summary Analysis Input Form used to enter summary sample data for Bacteriological and Turbidity contaminants into the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-TRANSACTION CODE is preprinted on the form as "07" and represents the input transaction code for Bacteriological or Turbidity Summary analysis results.

-The name and mailing address of the Public Water System may be entered on the form under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant ID Code of the Bacteriological or Turbidity contaminant to which the summary applies. The code must be on the Code Value Table (CVT) and the first digit must be a "0" for Turbidity contaminants and "3" for Bacteriological contaminants.

-The name of the contaminant bearing the Contaminant ID Code may be entered under CONTAMINANT NAME.

-ANALYSIS METHOD is a three-digit code of the method used in analyzing the samples. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory performing most of the analysis if the analysis was performed by a laboratory.

-NUMBER OF SAMPLES REQUIRED is the minimum number of samples required to be taken by the Federal regulations or by the State regulations, whichever is greater. For Federal turbidity it is the number of days in the month. For Federal bacteriological it is the number specified in the Bacteriological Population Table.

-ACTUAL NUMBER OF SAMPLES TAKEN represents the actual number of regular samples included in the summary.

-SAMPLE ANALYSIS RESULTS HIGHEST is the highest single sample result included in the average. Only the significant digits are entered.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in the Sample Analysis Results Bighest for Turbidity and Chlorine Residual samples. Enter a "0" for Bacteriological Samples using membrane filter or fermentation tube methods.

-SAMPLE ANALYSIS RESULTS LOWEST is the lowest single sample result obtained from all the samples comprising the summary. Enter only the significant digits.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in SAMPLE ANALYSIS RESULTS LOWEST for Turbidity and Chlorine Residual samples. Enter a "0" for bacteriological samples using membrane filter or fermentation tube methods.

-SAMPLE ANALYSIS RESULTS AVERAGE is the arithmetic mean of the analysis result of all the samples comprising the summary. Enter only the significant digits.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in SAMPLE ANALYSIS RESULTS AVERAGE. NOTE: The analysis result may be expressed in different units depending on the analysis method and type of violation. For membrane filter, method 303, the result is expressed as the number of coliform. For fermentation type methods, 305 and 307 as a single sample MCL violation, the results are expressed as the number of positive portions found. For fermentation tube methods 305 and 307 as a monthly average MCL violation, the results are expressed as a percent (%) of the number used in calculating the average.

-NUMBER OF SAMPLES IN VIOLATION FEDERAL MCL is the number of single samples violating the Federal MCL for coliform or turbidity. It is necessary only if the Federal MCL was violated. Coliform: the number of regular samples requiring check samples. Turbidity: the number of samples included in two-day average violations.

-NUMBER OF SAMPLES IN VIOLATION STATE MCL is the number of single samples violating the State MCL for coliform or turbidity. It is necessary only if the State MCL was violated. Coliform: the number of regular samples requiring check samples. Turbidity: the number of samples included in two-day average violations.

-LONGEST VIOLATION DURATION is the duration expressed in days of the longest violation of Federal or State regulations depending on whichever is the greater. Enter only if there is a violation. If the number of samples, Federal or State, is non-zero this field must be non-zero.

-SAMPLE PERIOD START is the starting date of the period during which samples are required to be taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y". Must be entered.

-SAMPLE PERIOD END is the ending date of the period during which samples are required to be taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y". Must be entered.

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", or "S" according to the sample type key on the input form. 'C', 'D' and 'P' sample types are used for turbidity compliance, while only 'C' and 'D' sample types are used for all other contaminants compliance.

-DATE OF LAST SAMPLE is the date on which the last sample of the period was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LABORATORY ID represents the Identification Code of the Laboratory analyzing the most samples of the summary sample group. It must be entered for membrane filter and fermentation sample analyses. The Laboratory must be on the Laboratory Table (LBT) and its authorized expiration date has not passed for membrane filter and fermentation tube sample analyses.

-The name of the Laboratory bearing the Identification Code may be entered under LABORATORY ANALYZING THE MOST SAMPLES NAME.

-CHECK SAMPLES REGULATIONS REQUIRED NUMBER TAKEN FEDERAL is whether or not check samples were taken in a manner and quantity to satisfy Federal regulation requirements. It is necessary only if check samples were required to be taken. Enter either a "Y" if met or exceeded Federal check sampling requirements or "N" if did not meet Federal check sampling requirements.

-CHECK SAMPLES REGULATIONS REQUIRED NUMBER TAKEN STATE is the same as above except based on state regulations.

-CHECK SAMPLES ACTUAL NUMBER TAKEN represents the actual number of check samples taken.

-NOTIFIED OF VIOLATIONS PUBLIC indicates whether or not the Public was notified in the event of a violation. It is necessary only if there was a violation which required Public notification. If entered, code a "Y" if the Public was notified or an "N" if the Public was not notified.

-NOTIFIED OF VIOLATIONS STATE indicates whether or not the State was notified in the event of a violation. It is necessary only if there was a violation which required State notification. If entered, code a "Y" if State notified or an "N" if State not notified.

EXHIBIT NO: WAQC.109

DESCRIPTION: This document is one of The Chemical or Radiological Analysis Input Forms used to enter sample data for Chemical and Radiological contaminants into the Periodic Sample File (PSF) in program module WAQC010. (See WAQC.106 for the other form.)

-The PWS ID is a seven-digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-The name and mailing address of the Public Water System may be entered on the form under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant Identification code of the particular chemical or radiological contaminant for which the sample was analyzed. The code must be on the Code Value Table (CVT) and the first digit must be a "1" for inorganic chemical contaminants, a "2" for organic chemical contaminants, and a "4" for radionuclide contaminants.

-The name of the contaminant bearing the Contaminant ID Code may be entered under CONTAMINANT NAME.

-ANALYSIS METHOD is a three-digit code of the analysis method used in analyzing the sample for a particular contaminant. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory that is performing the analysis. The first digit must match the first digit of the Contaminant ID.

-The ANALYSIS RESULT SIGN is the sign of the result of the analysis of the sample. The acceptable values for this field are '> ', '< ', '-', '+'. If blank, it is assumed to be '+'.

-The ANALYSIS RESULT is the result of the analysis of the sample in milligrams/liter for chemical samples or picocuries/liter for radiological samples. Only the significant digits are entered. If the result is less than the minimum detectable limit, the minimum detectable limit is entered unless this requirement is waived.

-ANALYSIS DECIMALS is the number of decimal places in the Analysis Result.

-The PRECISION of the analysis result is a positive integer which stipulates that a sample result is being expressed as a range. This field is only recognized for Radionuclide sample analysis results.

-ANALYSIS DATE is the date the analysis was performed. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LOCATION CODE is a unique code used to tie a check sample back to a regular sample for which it was taken. It is necessary only for regular samples for which check samples will be taken and only for check samples.

-The name of the location at which the sample was taken may be entered under LOCATION NAME.

-SAMPLE DATE is the date on which the sample was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", "S", "M", or "E" according to the sample type key on the input form. "C", "D", "M" and "E" sample types are processed in compliance.

-SAMPLE TIME is the time the sample was taken based on a 24-hour clock.

-LAB ID is the identification code of the Laboratory analyzing the sample. It must be a Laboratory present on the Laboratory Table (LBT) whose authorized expiration date has not passed.

-The name of the Laboratory bearing the Identification Code may be entered under LAB NAME.

-The name or initials of the individual performing the sample analysis for the particular contaminant specified under CONTAMINANT ID or collecting the sample can be entered under SAMPLE ANALYZED BY or SAMPLE COLLECTED BY respectively.

EXHIBIT NO: WAQC.110
DESCRIPTION: This document is the Sample Deletion Transactions form used to delete records from the Sample Analysis File (SAF) in WAQC020.

-The PWS ID is a seven-digit Identification Code of the Public Water System to which the sample applies. The Identification Code must be on both the Public Water Table (PWT) and the Sample Analysis File (SAF) in order for records to be deleted.

-CONTAMINANT ID is a four-digit Contaminant Identification Code of the sample record to be deleted. The code must be on both the Code Value Table (CVT) and the Sample Analsyis File (SAF) in order for the record to be deleted.

-The name of the Contaminant bearing the Contaminant ID code may be entered on the form under CONTAMINANT NAME.

-The ANALYSIS METHOD is a three-digit code of the analysis method of the sample record to be deleted. The first-digit must be the same as the first-digit of Contaminant ID and the analysis method must be on the Sample Analysis File (SAF) in order for the record to be deleted.

-SAMPLE KEY is the ten-digit sample key of the sample record to be deleted.

EXHIBIT NO: WAQC.111
DESCRIPTION: This Processing Option contains a date which is used on the reports created by WAQC005, WAQC011, WAQC013, and WAQC125.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: WAQC.113
DESCRIPTION: This Processing option contains the current date which is printed on the report created by WAQC220.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first PURGE DATE represents the purge date for contaminant group 0, the second PURGE DATE represents the purge date for contaminant group 1, the third PURGE DATE represents the purge date for contaminant group 2, the fourth PURGE DATE represents the purge date for contaminant group 3, and the fifth PURGE DATE represents the purge date for contaminant group 4. The purge date is entered only if records for the contaminant group are to be purged, otherwise the purge date is left blank. Code the date as explained above.

-The Purge Report Processing Option represents whether or not a purge report is to be created. Enter a "Y" if a purged report is to be produced else enter an "N" for no report.

EXHIBIT NO: WAQC114
DESCRIPTION: This PROC option contains the processing date for the job. Scheduling processing will be for the compliance periods beginning on or after this date for each respective contaminant group. When the compliance period begin date for a contaminant group is not after the previously scheduled period, scheduling will not be processed unless "rerun" or reschedule is indicated. Format MMDDYY.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SCHEDULING RERUN OPTION is to be used when all or part of the compliance periods indicated by the proc date have been scheduled before and all contaminant groups are to be scheduled. Enter a "Y" if the job is a rerun, else enter an "N" or leave blank.

-MONTHLY OPERATIONS REPORT OPTION indicates if Monthly Operations Report Update Forms for the next month are desired for those Public Water Systems required to submit the Monthly Operations Report. Enter a "Y" if the Update Forms are desired. The month scheduled will be the next one after the date entered in columns five through ten. Enter an "N" or leave blank if no Update Forms desired. A default of "N" is assumed if no entry is made.

EXHIBIT NO: WAQC115
DESCRIPTION: This PROC option contains the current date which is used to be printed on the report created in WAQC015 and WAQC100.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-FROM DATE is the desired selection period start date within which the contaminant group or groups are to be selected. Code date as indicated above.

-TO DATE is the desired selection period ending date within which the contaminant group or groups are to be selected. Code date as indicated above.

-Under CONTAMINANT GROUP 0 enter a "Y" if records in the Turbidity Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 1 enter a "Y" if records in the Inorganic Chemical Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 2 enter a "Y" if records in the Organic Chemical Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 3 enter a "Y" if records in the Bacteriological Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 4 enter a "Y" if records in the Radiological Contaminant Group are to be selected else enter an "N".

-Under SUMMARY OR LIST CHEMICAL enter an "S" if only summaries of chemical sample data are to be printed on the reports or enter an "L" if a list of every sample is to be printed along with the summary. If "S" is used, the last detail sample will be printed with the summary. An entry must be made if Contaminant Group 1 (Inorganic Chemical) and/or Contaminant Group 2 (Organic Chemical) contains a "Y".

-Under SUMMARY OR LIST RADIOLOGICAL enter an "S" if only summaries of radiological sample data are to be printed on the reports or enter an "L" if a list of every sample is to be printed along with the summary. If "S" is used, the last detail sample will be printed with the summary. An entry must be made if Contaminant Group 4 (Radiological) contains a "Y".

EXHIBIT NO:	WAQC.116
DESCRIPTION:	Refer to Section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program modules WAQC015, WAQC100, and WAQC125.

EXHIBIT NO: WAQC.117
DESCRIPTION: Refer to Section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program modules WAQC015, WAQC100, and WAQC125.

EXHIBIT NO: WAQC.118
DESCRIPTION: This Processing option contains the current date, which is printed on the reports produced by WAQC115 and WAQC120.

-Code the two-digit month under the "M", the two-digit day under "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is used to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate corrections through data entry devices. The second Standard Error Processing Option automatically defaults to 'N'.

-The Standard History Processing Option determines whether or not a report is to be printed and in what format. The instructions are self-explanatory.

EXHIBIT NO: WAQC.119
DESCRIPTION: This document is the Violations File Record Creation and Maintenance Form used to create new Violations File (VIF) records or update information on existing VIF records.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards. The first card must be a zero card.

-RECORD CREATION indicates whether or not a new record is being created. Enter a "Y" to create a new record; otherwise omit the entire card.

-PWS ID is the seven-digit identification number of the Public Water System to which the sample applies.

EXHIBIT NO: WAQC.120
DESCRIPTION: This document is the Violation File Record Creation and Maintenance Form used to update information on existing VIF records.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards.

-VIOLATION TYPE is a two-digit code identifying the type of violation. The code must be on the Code Value Table (CVT).

-VIOLATION DATE is the effective date of the violation. Code the two digit month under the "M", the two-digit day under the "D", and the last two digits of the year under "Y".

-MCL VIOLATED is the Maximum Contaminant Level (MCL) identified by the Regulations, the State, or as a condition of a Variance, Exemption, or Enforcement Action which was violated.

-MCL VIOLATED DECIMALS is the number of fractional decimal places designated in the MCL Violated.

-SAMPLING FREQUENCY VIOLATED is the sampling frequency requirement which was violated. For bacteriological sampling frequency enter the value in days otherwise enter the value in months.

-NUMBER SAMPLES VIOLATED is the number of samples which violated the Maximum Contaminant Level (MCL).

-VIOLATION DURATION is the duration of the violation expressed in months.

-NOTIFY PUBLIC and NOTIFY STATE indicate whether or not the Public and the State were notified. Enter a "Y" if notified. If not, enter an "N".

-SAMPLE TYPE is a code for the type of sample taken. Enter a "C" for Check Sample, "P" for Plant Tap Water Sample, "D" for Regular Distribution Sample, "R" for Raw Water Sample, or "S" for Special Sample.

-SAMPLE KEY is the ten-digit sample key which uniquely identifies the sample associated with the violation on the Periodic Sample File (PSF).

-DATE LAST REPORT is the date on which the last monthly operation report was submitted. Code the date as indicated above.

-TIME SINCE LAST REPORT is the number of months that have elapsed since the last monthly operation report was submitted.

EXHIBIT NO: WAQC.121
DESCRIPTION: This Processing option contains the current date for the job. It is printed on the report created by WAQC025.

-Code the two-digit month under "M", the two-digit day under "D", and the last two digits of the year under the "Y".

-PROCESSING LAG TIME is the lag time between the end of a compliance cycle and the processing of that cycle, expressed in days. This time delay includes the mailing time, the analysis time, and the data entry time, which is the time it takes to get the data for a compliance period into the system. A default value of ten will be assumed if no entry is made.

-BACTERIOLOGICAL/TURBIDITY COMPLIANCE CYCLE is the day of the month or quarter on which the compliance cycle begins for samples which are to be processed for Bacteriological and Turbidity violations. A default of "01" is assumed if no entry is made.

-INORGANIC CHEMICALS AVERAGE DAILY MAXIMUM AIR TEMPERATURE is the average daily maximum air temperature to be used in processing Inorganic Chemical violations when no value is present in the Public Water File. Enter in accordance with the National Primary Interim Drinking Water Regulations - Part IV. Enter a two decimal digit followed by a one decimal fraction.

-Under UNITS, which follows, enter the units of measurement used in the air temperature. An "F" is entered for Fahrenheit, a "C" for Celsius.

-ORGANIC CHEMICALS SEASONAL SAMPLING DATES FROM UNTIL are the starting date and the ending date of the sampling season for Organic Chemicals to be used in processing violations when no seasonal dates are present in the Public Water File record. Enter in accordance with the National Interim Primary Drinking Water Regulations - Part IV. Code the date as indicated above.

-OPERATIONS REPORT PROCESSING MONTH is the month for which Operations Report violations are to be processed. If no entry is made, Operations Report violations are not processed. Code the two-digit month under the "M" and the last two digits of the year under the "Y".

-RETAIN-CODE specifies that a retained Periodic Sample File (PSF) is to be produced. Only Bacteriological and Turbidity records may be retained. If no entry is made, or "0" is coded, no retained PSF is produced. Code a "1" to retain Bacteriological records only, a "2" to retain Turbidity records only or a "3" to retain both.

EXHIBIT NO: WAQC.122

DESCRIPTION: This document is the Violation File Record Creation and Maintenance Form used to update information on an existing Violations File (VIF) record or to enter information on a new record.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards.

-CARD NUMBER is a one-digit number indicating the order of the remarks and abstract.

-ABSTRACT comments or remarks pertaining to the violation. Fifty characters can be entered on each of three cards.

EXHIBIT NO: WAQC.123

DESCRIPTION: This document is the Violation File Record Creation and Maintenance Form used to update information on an existing Violations File (VIF) record or to enter information on a new record.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards.

-STATUS CODE is a one-digit code which stands for the legal action taken as a result of the violation. These codes are listed in the Violations Code Value Table.

-ACTION DATE is the Gregorian date on which the legal status was attained.

-DELETE indicates whether or not to delete a particular legal status. Enter "Y" to delete.

-MILESTONE CODE is a two-digit code which stands for milestone information associated with any enforcement action taken as a result of this violation. These codes are listed in the Code Value Table.

-MILESTONE DATE is the Gregorian date associated with the milestone information.

-DELETE indicates whether or not to delete a particular milestone. Enter a "Y" to delete.

EXHIBIT NO: WAQC.124

DESCRIPTION: This document is the Sample Scheduling Input Form used to determine what sample schedule output is to be produced for each Public Water System (PWS) for WAQC130.

-PWS-ID is a seven-digit Public Water System (PWS) identification number for the PWS to be scheduled.

-Under TURBIDITY, enter a "Y" if Turbidity samples are to be scheduled for this Public Water System. Otherwise enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under CHEMICALS, enter a "Y" if Chemical samples are to be scheduled for the Public Water System. Otherwise enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under BACTERIOLOGICAL, enter a "Y" if Bacteriological samples are to be scheduled for this Public Water System. Otherwise enter an "N" or leave blank. If the latter, a default value of "N" is assumed.

-Under RADIONUCLIDES NATURAL, enter a "Y" if Natural Radionuclide samples are to be scheduled for this Public Water System. Otherwise enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under RADIONUCLIDES MAN-MADE enter a "Y" if Man-Made Radionuclides are to be scheduled for this Public Water System else enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-BACTERIOLOGICAL MAILING LABELS OPTIONS indicates if mailing labels are desired for those Bacteriological samples scheduled for the Public Water System. Code "S" for one label for this Public Water System. Code "A" for one label for each Bacteriological sample scheduled for the Public Water System. Code a "P" which will indicate that the number of labels for this Public Water System will be specified under BACTERIOLOGICAL MAILING LABELS NUMBER (columns 14-15) with the number falling between "01" and "99". These latter two columns are left blank if "P" is not coded or a specified number is not desired. If no mailing labels are desired, enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-RESCHEDULE CHEMICALS and RESCHEDULE RADIONUCLIDES indicates whether Chemical samples and Natural or Man-Made Radionuclide samples previously scheduled for all or part of the current scheduling period are to be scheduled again during this job run. Code a "Y" if rescheduling is desired else code an "N" or leave blank. If the latter, a default of "N" is assumed.

EXHIBIT NO: WAQC.125
DESCRIPTION: This document is the Restart Form used to specify the page number at which printing will be restarted for WAQC150, WAQC170, and WAQC180.

-Under RESTART NUMBER enter the page number at which printing of the turnaround document is to be restarted.

EXHIBIT NO: WAQC.128

DESCRIPTION: This document is one of the two processing options forms for the Early Notification of Potential Sample Abnormalities process. It provides information necessary for the generation of the reports.

-PROCESSING DATE is the current date in Gregorian format.

-RECORD SELECTION indicates whether the entire Periodic Sample File (PSF) is to be used for comparison against the Early Notification Table (ENT) values or only those records added to the PSF on the processing date specified.

-REPORT TYPE indicates whether or not a report is to be generated and, if one is to be generated, the selection criteria required to produce the report.

EXHIBIT: WAQC.129

DESCRIPTION: This document is one of the two processing options forms for the Early Notification of Potential Sample Abnormalities process. It provides temporary overrides for the lower and upper contaminant levels of the Early Notification Table.

-The CONTAMINANT ID is a four-digit code specifying the contaminant record on the Early Notification Table which is to be modified.

-The ANALYSIS METHOD is entered when an Early Notification Table record with a specific analysis method grouped with the contaminant i.d. is to be modified.

-The PERCENTAGE or EXCLUSION is a two-digit numeric which specifies a percentage value to be used in the modification of the 'Lower Contaminant Level' and the 'Upper Contaminant Level' of the Early Notification Table, or '**' which indicates exclusion of this contaminant from the Early Notification process. See the Data Entry Instructions for details on this modification process.

EXHIBIT NO: WAQC.130

DESCRIPTION: This document is the Violation File Record Creation and Maintenance Form used to delete Violations on the existing Violation File.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards.

-RECORD DELETION indicates whether or not to delete a record. Enter a "Y" to delete the record. Otherwise omit the card.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

```
      [illegible]                                   1 OF 1
                                                    10/28/76
LAB CERTIFICATION MODULE
   SOUTHWESTERN OHIO [illegible] COMPUTER CENTER
EXHIBIT WQC.500

                                             MODEL STATE INFORMATION SYSTEM
WQC210                                      WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                                 LABORATORY TABLE REPORT                                    PAGE ZZZZ9

    LAB ID          LABORATORY NAME                  CONTAMINANT    ______AUTHORIZED ANALYSIS METHOD CODES______
                                                        GROUP
1   XXXXX   2XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                        XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                          0
         ORDER TYPE      EXPIRATION DATE                            XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
         3 X             4 XX/XX/XX
                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                          1
                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                          2
                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                          3
                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                          4
                                                                    XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                                                      5
```

Binder 15
27/78

EXHIBIT NO: WAQC.300 **PAGE** 1 **OF** 1

PROGRAM NO: WAQC210

TITLE: Laboratory Table Report

FIELD NO:	1	DATA ELEMENT NAME:	LBT-LAB-ID
CATALOGUE NO:	319	DESCRIPTION:	Code identification of an approved laboratory for Water Sampling Analysis.
FIELD NO:	2	DATA ELEMENT NAME:	LBT-LAB-NAME
CATALOGUE NO:	322	DESCRIPTION:	Name of the approved laboratory.
FIELD NO:	3	DATA ELEMENT NAME:	LBT-OWNER-TYPE
CATALOGUE NO:	321	DESCRIPTION:	The owner type of the approved laboratory.
FIELD NO:	4	DATA ELEMENT NAME:	LBT-EXPIRATION-DATE
CATALOGUE NO:	323	DESCRIPTION:	Date on which the approval of the laboratory terminates.
FIELD NO:	5	DATA ELEMENT NAME:	LBT-ANALYSIS-METHOD
CATALOGUE NO:	820	DESCRIPTION:	Code for a particular method of analyzing water samples.

```
          WAQC010                     1 OF 1
                                      12/17/76
   PSF DATA ENTRY AND UPDATE MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
   EXHIBIT WAQC.301


 WAQC010                                      MODEL STATE INFORMATION SYSTEM
                                            WATER QUALITY COMPLIANCE SUBSYSTEM
 DATE XX/XX/XX
                                           UPDATE REPORT - PERIODIC SAMPLE FILE
                                                                                                      PAGE ZZZZ9
 ACTION
  TAKEN    --------RECORD KEY-----------------     --------------------REMAINDER OF THE RECORD------------------------
  ADDED    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 DELETED   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

1 2 3

EXHIBIT NO: WAQC.301 PAGE 1 OF 1

PROGRAM NO: WAQC010

TITLE: Update Report - Periodic Sample File

FIELD NO: 1
DESCRIPTION: States whether the record was added to or deleted from the Periodic Sample File.

FIELD NO: 2
DESCRIPTION: RECORD KEY: PWS-ID, Contaminant ID, location code, sample type, date, time and key, record type.

FIELD NO: 3
DESCRIPTION: Remainder of record image.

```
          WAQC011                          1 OF 1
                                           12/17/76
PSF TRANSACTION REPORT
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.302


WAQC011                                        MODEL STATE INFORMATION SYSTEM
                                              WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                       TRANSACTION SORT SEQUENCE REPORT - PERIODIC SAMPLE FILE                   PAGE ZZZZ9

                                         MNEMONIC NAME    SORT MODE
                                      1.  XXXXXXXXXX        X
                                      2.  XXXXXXXXXX        X
                                      3.  XXXXXXXXXX        X
                                      4.  XXXXXXXXXX        X
                                      5.  XXXXXXXXXX        X
                                      6.  XXXXXXXXXX        X
                                      7.  XXXXXXXXXX        X
                                      8.  XXXXXXXXXX        X
                                      9.  XXXXXXXXXX        X
                                     10.  XXXXXXXXXX        X
                                              1             2
```

EXHIBIT NO: WAQC.302 PAGE 1 OF 1

PROGRAM NO: WAQC011

TITLE: Transaction Sort Sequence Report

FIELD NO: 1
DESCRIPTION: Mnemonic name of sort field.

FIELD NO: 2
DESCRIPTION: Mode of sort field; A = Ascending, D = Descending.

```
        WAQC011                               1 OF 1
                                             12/17/76
   PSF TRANSACTION REPORT
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
   EXHIBIT WAQC.303


  WAQC011                                     MODEL STATE INFORMATION SYSTEM
                                             WATER QUALITY COMPLIANCE SUBSYSTEM
  DATE XX/XX/XX                        INPUT TRANSACTION REPORT - PERIODIC SAMPLE FILE                      PAGE ZZZZ9

                                                           CARD COLUMNS
                                   1         2         3         4         5         6         7         8
                 REJECT   12345678901234567890123456789012345678901234567890123456789012345678901234567890
                   X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                   X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                   X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

1

2

EXHIBIT NO: WAQC.303 PAGE 1 OF 1

PROGRAM NO: WAQC011

TITLE: Input Transaction Report - Periodic Sample File

FIELD NO: 1
DESCRIPTION: An asterisk (*) denotes the transaction has been rejected due to errors.

FIELD NO: 2
DESCRIPTION: A character image of the input.

```
                   WAQC020                            1 OF 1
                                                      12/30/76

    SAF UPDATE MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
    EXHIBIT WAQC.304

                                                          MODEL STATE INFORMATION SYSTEM
WAQC020                                                 WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                                         SAMPLE ANALYSIS FILE DELETION REPORT                                              PAGE ZZZZ9

                     RECORD KEY                                                |   REMAINDER OF THE RECORD

      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                        1                                                              2
```

EXHIBIT NO: WAQC.304

PAGE 1 OF 1

PROGRAM NO: WAQC020

TITLE: Sample Analysis File Deletion Report

FIELD NO: 1
DESCRIPTION: Record key: PWS ID, Contaminant ID, location code, sample type, date, time and key, and record type.

FIELD NO: 2
DESCRIPTION: Remainder of record image.

WAQC065 1 of 1

2/28/81

IBM

Trihalomethane Sampling Violations Report Module

Exhibit WAQC.305

```
                                MODEL STATE INFORMATION SYSTEM
WAQC065 XXXX                    WATER QUALITY COMPLIANCE SUBSYSTEM                      WAQC.305
DATE XX/XX/XX                  TRIHALOMETHANE SAMPLING VIOLATIONS REPORT                PAGE ZZZZ9
PERIOD XX/XX/XX TO XX/XX/XX          CONTAMINANT ID 2950

 PWS-ID 1  --PUBLIC WATER SYSTEM NAME--  2 REGION  3 DISTRICT 4  5 TYPE 6 -PWS- POPULATION 7 SOURCE   8 ---NOTIFY--- PUBLIC  STATE 9
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX        XX            X    XXXXXXXXX     X              X       X
10 --SAMPLE--  11 SAMPLING 12 ---NUMBER XXXXXXX SAMPLES---       -------VIOLATION------      SAMPLING-           REGULATION
DATE    TYPE   CUT-OFF        REQUIRED          TAKEN          TYPE    DATE    DURATION 19  FREQUENCY           LEVEL     21
               DATE       FEDERAL 13 STATE 14  FEDERAL 15 STATE 16  17    18    (MONTHS)    VIOLATED  20
XX/XX/XX  X   XX/XX/XX    XXXX    XXXX        XXXX   XXXX       XX   XX/XX/XX    XX         XXX                XX

 PWS-ID    --PUBLIC WATER SYSTEM NAME--    REGION     DISTRICT                -PWS-                 ---NOTIFY---
                                                                    TYPE  POPULATION  SOURCE        PUBLIC  STATE
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX        XX            X    XXXXXXXXX     X              X       X
 --SAMPLE--     SAMPLING   ---NUMBER XXXXXXX SAMPLES---       -------VIOLATION------      SAMPLING-           REGULATION
DATE    TYPE   CUT-OFF        REQUIRED          TAKEN          TYPE    DATE    DURATION   FREQUENCY           LEVEL
               DATE       FEDERAL  STATE      FEDERAL  STATE                   (MONTHS)   VIOLATED
XX/XX/XX  X   XX/XX/XX    XXXX    XXXX        XXXX   XXXX       XX   XX/XX/XX    XX         XXX                XX

 PWS-ID    --PUBLIC WATER SYSTEM NAME--    REGION     DISTRICT                -PWS-                 ---NOTIFY---
                                                                    TYPE  POPULATION  SOURCE        PUBLIC  STATE
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX        XX            X    XXXXXXXXX     X              X       X
 --SAMPLE--     SAMPLING   ---NUMBER XXXXXXX SAMPLES---       -------VIOLATION------      SAMPLING-           REGULATION
DATE    TYPE   CUT-OFF        REQUIRED          TAKEN          TYPE    DATE    DURATION   FREQUENCY           LEVEL
               DATE       FEDERAL  STATE      FEDERAL  STATE                   (MONTHS)   VIOLATED
XX/XX/XX  X   XX/XX/XX    XXXX    XXXX        XXXX   XXXX       XX   XX/XX/XX    XX         XXX                XX
```

EXHIBIT NO: WAQC.305 PAGE 1 OF 3

PROGRAM NO: WAQC065

TITLE: Trihalomethane Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 6 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 7 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 8 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 9 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 10 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format. May be zero if no sample was taken.

EXHIBIT NO: WAQC.305 PAGE 2 OF 3

PROGRAM NO: WAQC065

TITLE: Trihalomethane Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation. Only 'C' and 'M' will be checked for compliance.

FIELD NO: 12 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-NUM-REQUIRED
CATALOGUE NO: 335 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 17 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

EXHIBIT NO: WAQC.305 PAGE 3 OF 3

PROGRAM NO: WAQC065

TITLE: Trihalomethane Sampling Violations Report

FIELD NO: 18 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Beginning date of the compliance period in which the sample should have been taken, converted from Julian format.

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency which was violated in months.

FIELD NO: 21 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

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           WAQC041                                   1 OF 1
                                                     1/13/77
RADIOLOGICAL MCL VIOLATIONS REPORT MODULE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.306


WAQC041                                       MODEL STATE INFORMATION SYSTEM
                                             WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX
                                                CHEMICAL MCL VIOLATIONS REPORT
PERIOD XX/XX/XX TO XX/XX/XX                                                                          PAGE ZZZZ9

   PWS-ID    ---PUBLIC WATER SYSTEM NAME---
                                                   REGION                     DISTRICT
1 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 2     3 XX                        4 XX               ----NOTIFY---
   -------------LABORATORY--------------                                                          PUBLIC   STATE
   ID                NAME                    ------------CONTAMINANT------------                 5 X        X 6
7  XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8  9  ID               NAME                              ---------PWS-----------
                                           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10   11    TYPE  POPULATION   SOURCE
  ---SAMPLE----         ---------ANALYSIS----------                                             X    XXXXXXXXX     X 13
   DATE   TYPE          DATE    METHOD   RESULTS       -------VIOLATION-------      ----MCL---     12
                                                       TYPE   DATE    DURATION      VIOLATED         REGULATION
  XX/XX/XX  XX          XX/XX/XX  XXX   XXXXXXXXXX                     (MONTHS)                         LEVEL
    14      15            16      17       18           X   XX/XX/XX     XX        XXXXXXXXXX
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---              19     20        21            22                XX
                                                  REGION                                                 23
  XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                     DISTRICT             ----NOTIFY---
                                                   XX                                               PUBLIC   STATE
  -------------LABORATORY--------------                                        XX                     X        X
  ID                NAME                   ------------CONTAMINANT------------
                                           ID              NAME                              ---------PWS-----------
  XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                                        TYPE  POPULATION   SOURCE
                                           XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 ---SAMPLE----          ---------ANALYSIS----------                                           X    XXXXXXXXX     X
  DATE   TYPE           DATE    METHOD   RESULTS       -------VIOLATION-------      ----MCL---
                                                       TYPE   DATE    DURATION      VIOLATED         REGULATION
 XX/XX/XX  XX          XX/XX/XX  XXX   XXXXXXXXXX                     (MONTHS)                         LEVEL
                                                         X   XX/XX/XX     XX        XXXXXXXXXX
                                                                                                          XX
```

EXHIBIT NO: WAQC.306 PAGE 1 OF 3

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

EXHIBIT NO: WAQC.306 PAGE 2 OF 3

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date the analysis result in violation was obtained, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: Code identifying the analysis method used. See CVT for description.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis, units are as expressed in the Regs.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

EXHIBIT NO: WAQC.306

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT For description.

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date of the last confirming check sample. If no check samples, then it is the date of the sample for which the violation occurred.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated; units are as expressed in the Regs.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

150/10/6 PRINT CHART PROG. ID WAQC050 PAGE 1 OF 1

DATE 2/11/77

PROGRAM TITLE BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE

PROGRAMMER OR DOCUMENTALIST SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

CHART TITLE EXHIBIT WAQC.307

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WAQC050                                   MODEL STATE INFORMATION SYSTEM
                                        WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX
                                      BACTERIOLOGICAL MCL VIOLATIONS REPORT                          PAGE ZZZZ9
PERIOD XX/XX/XX TO XX/XX/XX


  PWS-ID    ---PUBLIC WATER SYSTEM NAME---           REGION                 DISTRICT              ---NOTIFY---
1 XXXXXXX 2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         3 XX                   4 XX                  5 PUBLIC  STATE 6
                                                                                                   X        X

               ---LABORATORY---------                        ---CONTAMINANT---------       ---------PWS---------
   ID                    NAME                     ID                  NAME                 TYPE  POPULATION   SOURCE
7 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8       9 XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXX 10     11 X 12 XXXXXXXX 13 X
 ---SAMPLE---              -------ANALYSIS-------                ----VIOLATION------         ---MCL---     REGULATION
  DATE     TYPE          DATE     METHOD   RESULTS          TYPE    DATE     DUR(DAYS)      VIOLATED        LEVEL
XX/XX/XX    X         XX/XX/XX    XXX    XXXXXXXXXX          XX   XX/XX/XX     XXX         XXXXXXXXXX         XX
   14      15            16        17        18               19      20        21             22             23
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---           REGION                 DISTRICT              ---NOTIFY---
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             XX                     XX                  PUBLIC  STATE
                                                                                                   X        X
               ---LABORATORY---------                        ---CONTAMINANT---------       ---------PWS---------
   ID                    NAME                     ID                  NAME                 TYPE  POPULATION   SOURCE
 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXX          X   XXXXXXXX     X
 ---SAMPLE---              -------ANALYSIS-------                ----VIOLATION------         ---MCL---     REGULATION
  DATE     TYPE          DATE     METHOD   RESULTS          TYPE    DATE     DUR(DAYS)      VIOLATED        LEVEL
XX/XX/XX    X         XX/XX/XX    XXX    XXXXXXXXXX          XX   XX/XX/XX     XXX         XXXXXXXXXX         XX
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Binder 15
03/15/82

Binder 15
5/12/78

EXHIBIT NO: WAQC.307
PAGE 1 OF 3

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether state notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis. Not required of chlorine residual analysis method.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

EXHIBIT NO: WAQC.307 PAGE 2 OF 4

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATE ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format, when a list form (WAQC.401) was used in a single sample MCL violation condition. Will appear as the first date of the compliance period for monthly average MCL violations or any violations resulting from the use of a summary form (WAQC.402).

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: Code identifying the type of sample taken in violation. Only 'C' and 'D' will be checked for compliance.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date the analysis result in violation was obtained, converted from Julian format, when a list form (WAQC.401) was used in a single sample MCL violation condition. Will appear as 00/00/00 for monthly average MCL violations or any violations resulting from the use of a summary form (WAQC.402).

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method used. See CVT for description.

Binder 15
5/12/78

EXHIBIT NO: WAQC.307 PAGE 3 OF 4

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

NOTE: The analysis result may be expressed in different units depending on the analysis method and type of violation. For membrane filter, method 303, the result is expressed as the number of coliform. For fermentation tube methods, 305 and 307 as a single sample MCL violation, the results are expressed as the number of positive portions found. For fermentation tube methods 305 and 307 as a monthly average MCL violation, the results are expressed as a percent (%) of the number used in calculation the average.

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date of the beginning of the compliance period. (A PWS is in violation for the entire period.)

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of days in the compliance period.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated.

EXHIBIT NO: WAQC.307 PAGE 4 OF 4

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

NOTE: The MCL violated may be expressed in different units depending on the analysis method and type of violation. For membrane method 303, the MCL is expressed as a maximum count of coliform allowable per sample for single sample MCL, or as an average count of coliform allowable for the compliance period. For fermentation tube methods, 305 and 307 as a single sample MCL violation, the MCL is expressed as the maximum allowable number of positive tubes per sample. For fermentation tube methods 305 and 307 as a monthly average MCL violation, the MCL is expressed as a percent (%) of the number of positive tubes allowable divided by the total number of tubes used in calculating the average.

FIELD NO: 53 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

150/10/6 PRINT CHART PROG ID WAQC051 PAGE 1 OF 1
(SPACING: 150 POSITION SPAN, AT 10 CHARACTERS PER INCH, 6 LINES PER VERTICAL INCH) DATE 2/11/77
PROGRAM TITLE TURBIDITY SAMPLING VIOLATIONS REPORT MODULE
PROGRAMMER OR DOCUMENTALIST SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
CHART TITLE EXHIBIT WAQC.308

CARRIAGE CONTROL TAPE CHAN.

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WAQC051                                           MODEL STATE INFORMATION SYSTEM
                                                WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                                   TURBIDITY MCL VIOLATIONS REPORT
PERIOD XX/XX/XX TO XX/XX/XX                                                                                            PAGE ZZZZ

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---                REGION                         DISTRICT                 ----NOTIFY----
1XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX2              3XX                           4 XX                      PUBLIC  STATE
                                                                                                                 5X      6X
  --------------LABORATORY--------------                  ------CONTAMINANT------------        ---------PWS----------------
  ID                  NAME                        ID              NAME                         TYPE  POPULATION     SOURCE
7XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8        9XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX10      11X     XXXXXXXX        X 13
                                                                                                       12
 ---SAMPLE---          -------ANALYSIS--------                --------VIOLATION---------      ---MCL---          REGULATION
  DATE    TYPE          DATE     METHOD  RESULTS              TYPE    DATE    DUR(DAYS)       VIOLATED             LEVEL
XX/XX/XX   X          XX/XX/XX    XXX   XXXXXXXXXX             XX   XX/XX/XX     XXX         XXXXXXXXXX             XX
   14     15             16       17       18                  19      20        21              22                 23
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---                REGION                         DISTRICT                 ----NOTIFY----
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX                            XX                     PUBLIC  STATE
                                                                                                                   X       X
  --------------LABORATORY--------------                  ------CONTAMINANT------------        ---------PWS----------------
  ID                  NAME                        ID              NAME                         TYPE  POPULATION     SOURCE
 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             X     XXXXXXXX        X
 ---SAMPLE---          -------ANALYSIS--------                --------VIOLATION---------      ---MCL---          REGULATION
  DATE    TYPE          DATE     METHOD  RESULTS              TYPE    DATE    DUR(DAYS)       VIOLATED             LEVEL
XX/XX/XX   X          XX/XX/XX    XXX   XXXXXXXXXX             XX   XX/XX/XX     XXX         XXXXXXXXXX             XX
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Binder 15
03/15/82

EXHIBIT NO: WAQC.308 PAGE 1 OF 3

PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis. May be blank since a certified operator may be doing the analysis. Not required of nephelometric analysis method.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis. May be blank since a certified operator may be doing the analysis.

EXHIBIT NO: WAQC.308 PAGE 2 OF 3

PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIElD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation. Only 'C' and 'D' will be checked for compliance.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date the analysis result in violation was obtained, converted from Julian format.

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5/12/78

EXHIBIT NO: WAQC.308 PAGE 3 OF 3

PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method. See CVT for description.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis in turbidity units.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date of the beginning of the compliance period. (A PWS is in violation for the entire period.)

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of days that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated expressed in turbidity units.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

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                 WAQC041
                                                        1 OF 1
RADIOLOGICAL MCL VIOLATIONS REPORT MODULE               1/13/77
               SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.309


WAQC041
                                            MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                              WATER QUALITY COMPLIANCE SUBSYSTEM

PERIOD XX/XX/XX TO XX/XX/XX                RADIOLOGICAL MCL VIOLATIONS REPORT

                                                                                     PAGE ZZZZ9
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---
1 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 2      REGION
                                                  3 XX                DISTRICT
  -------------LABORATORY-------------                               4  XX         5 ----NOTIFY---
  ID                NAME                                                             PUBLIC  STATE 6
7 XXXXX                                  ------------CONTAMINANT------------
                                    8    ID                NAME                       ---------PWS-----------
                                       9 XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10      TYPE  POPULATION  SOURCE
 ---SAMPLE----     ---------ANALYSIS----------                                    11 X  12 XXXXXXXXX  X 13
  DATE    TYPE        DATE   METHOD  RESULTS        -------VIOLATION-------
                                                    TYPE   DATE    DURATION       ----MCL---       REGULATION
XX/XX/XX  XX       XX/XX/XX   XXX   XXXXXXXXXX                     (MONTHS)        VIOLATED           LEVEL
  14      15          16      17       18            XX  XX/XX/XX    XXX          XXXXXXXXXX          XX
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---           19    20        21              22               23
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          REGION
                                                                      DISTRICT
  -------------LABORATORY-------------            XX                                   ----NOTIFY---
  ID                NAME                                              XX              PUBLIC  STATE
                                         ------------CONTAMINANT------------
XXXXX                                    ID                NAME
                                                                                  ---------PWS-----------
 ---SAMPLE----                           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     TYPE  POPULATION  SOURCE
  DATE    TYPE     ---------ANALYSIS----------
                      DATE   METHOD  RESULTS        -------VIOLATION-------        X    XXXXXXXXX    X
XX/XX/XX  XX                                        TYPE   DATE    DURATION
                   XX/XX/XX   XXX   XXXXXXXXXX                     (MONTHS)       ----MCL---       REGULATION
                                                     XX  XX/XX/XX    XXX           VIOLATED           LEVEL

                                                                                  XXXXXXXXXX
                                                                                                      XX
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EXHIBIT NO: WAQC.309

PROGRAM NO: WAQC041

PAGE 1 OF 3

TITLE: Radiological MCL Violations Report

FIELD NO: 1
CATALOGUE NO: 326
DATA ELEMENT NAME: VIF-PWS-ID
DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2
CATALOGUE NO: 327
DATA ELEMENT NAME: VIF-PWS-NAME
DESCRIPTION: The name of the PWS.

FIELD NO: 3
CATALOGUE NO: 352
DATA ELEMENT NAME: VIF-REGION
DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4
CATALOGUE NO: 353
DATA ELEMENT NAME: VIF-DISTRICT
DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5
CATALOGUE NO: 350
DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
DESCRIPTION: No longer printed on this report.

FIELD NO: 6
CATALOGUE NO: 351
DATA ELEMENT NAME: VIF-NOTIFY-STATE
DESCRIPTION: No longer printed on this report.

FIELD NO: 7
CATALOGUE NO: 333
DATA ELEMENT NAME: VIF-LAB-ID
DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8
CATALOGUE NO: 334
DATA ELEMENT NAME: VIF-LAB-NAME
DESCRIPTION: No longer printed on this report.

EXHIBIT NO: WAQC.309 PAGE 2 OF 3

PROGRAM NO: WAQC041

TITLE: Radiological MCL Violations Report

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the last sample used in yearly average calculations.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken that was in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date of the analysis result of the last sample used in the yearly average calculations.

EXHIBIT NO: WAQC.309
PROGRAM NO: WAQC041
PAGE 3 OF 3

TITLE: Radiological MCL Violations Report

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method used. See CVT for description.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis; units are as expressed in the Regs.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date of the sample for which the violation occurred, converted from Julian format.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated; units are as expressed in the Regs.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

```
        WAQC060
                                                      1 OF 1
  CHEMICAL SAMPLING VIOLATIONS REPORT MODULE          2/11/77
              SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT WAQC.310


  WAQC060                                       MODEL STATE INFORMATION SYSTEM
  DATE XX/XX/XX                                 WATER QUALITY COMPLIANCE SUBSYSTEM
  PERIOD XX/XX/XX TO XX/XX/XX                   CHEMICAL SAMPLING VIOLATIONS REPORT
                                                                                                          PAGE ZZZZ9
    PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                    DISTRICT           ----NOTIFY---
1  XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 2         3 XX                      4 XX                PUBLIC  STATE
  ------------LABORATORY---------------                                                             5 X      X 6
   ID              NAME                     ID  --------CONTAMINANT-----------                     -----PWS-----
7 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8  9 XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10   11 TYPE  POPULATION  SOURCE
  ---SAMPLE----     SAMPLING  ------NUMBER XXXXXXX SAMPLES----     -------VIOLATION------             X    XXXXXXXX  X 13
   DATE    TYPE     CUT-OFF        REQUIRED             TAKEN      TYPE    DATE     DURATION   SAMPLING-      12   REGULATION
                     DATE     FEDERAL STATE     FEDERAL STATE                       (MONTHS)   FREQUENCY            LEVEL
                                    ①                                                          VIOLATED
  XX/XX/XX   X     XX/XX/XX   XXXX    XXXX      XXXX    XXXX       XX    XX/XX/XX    XX          XXX                XX
     14     15        16       17      18        19      20        21       22       23          24                 25
  PWS-ID   ---PUBLIC WATER SYSTEM NAME---               REGION                    DISTRICT            ----NOTIFY---
  XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                        XX                 PUBLIC  STATE
  ------------LABORATORY--------------                                                                 X       X
   ID              NAME                    ID  --------CONTAMINANT-----------                      -----PWS-----
  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                 TYPE  POPULATION  SOURCE
  ---SAMPLE----     SAMPLING   ----NUMBER XXXXXXX SAMPLES----    -------VIOLATION------            X    XXXXXXXX    X
   DATE    TYPE     CUT-OFF        REQUIRED            TAKEN      TYPE    DATE     DURATION    SAMPLING-      REGULATION
                     DATE     FEDERAL STATE    FEDERAL STATE                       (MONTHS)    FREQUENCY         LEVEL
                                    ①                                                          VIOLATED
  XX/XX/XX   X     XX/XX/XX   XXXX    XXXX     XXXX    XXXX       XX    XX/XX/XX    XX          XXX               XX

① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
  DEPENDING ON VIOLATION TYPE.
```

EXHIBIT NO: WAQC.310

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIP-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIP-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIP-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIP-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIP-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIP-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIP-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIP-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIP-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIP-CONTAMINANT-ID.

EXHIBIT NO: WAQC.310 PAGE 2 OF 3

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format. May be zero if no sample was taken.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation. Only 'C' and 'D' will be checked for compliance.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLE-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

EXHIBIT NO: WAQC.310 PAGE 3 OF 3

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 22 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Beginning date of the compliance period in which the sample should have been taken, converted from Julian format.

FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency which was violated in months.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

Binder 15
03/15/82

IBM GX20-1816-0 U/M025 Printed in U.S.A.

NOTE: Dimensions on this sheet vary with humidity. Exact measurements should be calculated or scaled with a ruler rather than with the lines on this chart.

Fold back at dotted line

Fold in at dotted line

150/10/8 PRINT CHART PROG ID WAQC070 PAGE 1 OF 1
DATE 2/11/77

(SPACING: 150 POSITION SPAN, AT 10 CHARACTERS PER INCH, 6 LINES PER VERTICAL INCH)

PROGRAM TITLE BACTERIOLOGICAL MCL VIOLATIONS REPORT MODULE

PROGRAMMER OR DOCUMENTALIST SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

CHART TITLE EXHIBIT WAQC.311

CARRIAGE CONTROL
TAPE CHAN

```
                                                        MODEL STATE INFORMATION SYSTEM
WAQC070                                              WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                                     BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT                              PAGE ZZZZ9
                                                                                                                        CYCLE    29
PERIOD XX/XX/XX TO XX/XX/XX
                                                                                                                      ---NOTIFY---
   PWS-ID     ---PUBLIC WATER SYSTEM NAME---                REGION                      DISTRICT                      PUBLIC   STATE
1 XXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  2             3 XX                        4 XX                          5 X      X 6
                                                       ---CONTAMINANT-----------                   ---------PWS----------
   ID         ---LABORATORY---                   ID          NAME                                  TYPE  POPULATION  SOURCE
                   NAME
7  XXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  8    9 XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX 10              11 X   XXXXXXXX   X 13
   --SAMPLE--       SAMPLING      ---NUMBER XXXXXX SAMPLES---      ---VIOLATION---                SAMPLING-      REGULATION
   DATE   TYPE      CUT-OFF          REQUIRED       TAKEN        TYPE   DATE    DURATION          FREQUENCY 12     LEVEL
                     DATE         FEDERAL STATE  FEDERAL STATE                   (DAYS)           VIOLATED
                                                                  XX  XX/XX/XX   XXX                XXX            XX
   XX/XX/XX  X     XX/XX/XX       XXXX   XXXX     XXXX  XXXX
   14       15      16            17     18       19    20        21    22       23                 24             25
   PWS-ID     ---PUBLIC WATER SYSTEM NAME---                REGION          DISTRICT                      ---NOTIFY---
                                                                                                          PUBLIC   STATE
   XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX              XX                           X        X
                                                       ---CONTAMINANT-----------             ---------PWS----------
   ID         ---LABORATORY---                   ID          NAME                            TYPE  POPULATION  SOURCE
                   NAME
   XXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX            XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX        X     XXXXXXXX    X
                                                ①
   --SAMPLE--       SAMPLING      ---NUMBER XXXXXX SAMPLES---      ---VIOLATION---            SAMPLING-      REGULATION
   DATE   TYPE      CUT-OFF          REQUIRED       TAKEN        TYPE   DATE    DURATION      FREQUENCY        LEVEL
                     DATE         FEDERAL STATE  FEDERAL STATE                   (DAYS)       VIOLATED

   XX/XX/XX  X     XX/XX/XX       XXXX   XXXX     XXXX  XXXX      XX  XX/XX/XX   XXX            XXX            XX


① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
  DEPENDING ON VIOLATION TYPE.
```

217 (R)

EXHIBIT NO: WAQC.311

PAGE 1 OF 3

PROGRAM NO: WAQC070

TITLE: Bacteriological Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis. Not required of chlorine residual analysis method.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

EXHIBIT NO: WAQC.311 PAGE 2 OF 3

PROGRAM NO: WAQC070

TITLE: Bacteriological Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the beginning of the compliance period, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation. Only 'C' and 'D' will be checked for compliance.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise zero.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise zero.

EXHIBIT NO: WAQC.311 PAGE 3 OF 3

PROGRAM NO: WAQC070

TITLE: Bacteriological Sampling Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise zero.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise zero.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 22 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date of the beginning of the compliance period, converted from Julian format.

FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of days in the compliance period.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency in months, which was violated.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

150/10/6 PRINT CHART PROG ID WAQC080 PAGE 1 OF 1

DATE 2/11/77

(SPACING: 150 POSITION SPAN, AT 10 CHARACTERS PER INCH, 6 LINES PER VERTICAL INCH)

PROGRAM TITLE TURBIDITY MCL VIOLATIONS REPORT MODULE

PROGRAMMER OR DOCUMENTALIST SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

CHART TITLE EXHIBIT WAQC.312

Fold back at dotted line

Fold in at dotted line

IBM GX20-1816-0 U/M025* Printed in U.S.A.

NOTE: Dimensions on this sheet vary with humidity. Exact measurements should be calculated or scaled with a ruler rather than with the lines on this chart.

CARRIAGE CONTROL TAPE CHAN

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                                             MODEL STATE INFORMATION SYSTEM
WAQC080                                    WATER QUALITY COMPLIANCE SUBSYSTEM
                                          TURBIDITY SAMPLING VIOLATIONS REPORT                              PAGE ZZZZ9
DATE XX/XX/XX
                                                                                                            CYCLE   Z9
PERIOD XX/XX/XX TO XX/XX/XX
                                                                                                          ---NOTIFY---
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---              REGION                           DISTRICT         PUBLIC  STATE
1XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  2          3XX                              4 XX             5X       X6
                                                              ----CONTAMINANT--------------              -----PWS-------
  ---------LABORATORY-------------                       ID           NAME                          TYPE  POPULATION  SOURCE
   ID                 NAME
7XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX8        ①  9XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX10        11X     XXXXXXXXX    X13
                                                                                                 SAMPLING-  12 REGULATION
  ---SAMPLE---      SAMPLING      -----NUMBER XXXXXXX SAMPLES---        ---------VIOLATION-------  FREQUENCY       LEVEL
  DATE    TYPE      CUT-OFF         REQUIRED           TAKEN            TYPE    DATE    DURATION   VIOLATED
                     DATE        FEDERAL  STATE     FEDERAL  STATE                       (DAYS)

XX/XX/XX   X       XX/XX/XX       XXXX    XXXX       XXXX    XXXX          XX  XX/XX/XX   XXX        XXX           XX
   14     15          16           17      18         19      20           21     22       23         24           25
  PWS-ID    ---PUBLIC WATER SYSTEM NAME---                     REGION                    DISTRICT         ---NOTIFY---
                                                                                                          PUBLIC  STATE
XXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                     XX                          XX              X      X
                                                                                                         -----PWS-------
  ---------LABORATORY-------------                         ---CONTAMINANT--------------           TYPE  POPULATION  SOURCE
   ID                 NAME                              ID         NAME
                                                                                                    X     XXXXXXXXX    X
XXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                 XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                 ①                                               SAMPLING-    REGULATION
  ---SAMPLE---      SAMPLING      -----NUMBER XXXXXXX SAMPLES---        ---------VIOLATION-------  FREQUENCY       LEVEL
  DATE    TYPE      CUT-OFF         REQUIRED           TAKEN            TYPE    DATE    DURATION   VIOLATED
                     DATE        FEDERAL  STATE     FEDERAL  STATE                       (DAYS)

XX/XX/XX   X       XX/XX/XX       XXXX    XXXX       XXXX    XXXX          XX  XX/XX/XX   XXX        XXX           XX

 ① WILL CONTAIN EITHER "REGULAR" OR "REPEAT"
   DEPENDING ON VIOLATION TYPE
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221 (R)

Binder 1
03/15/82

*Number of forms per pad may vary

Binder 15
5/12/78

EXHIBIT NO: WAQC.312

PAGE 1 OF 3

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis. May be blank since a certified operator may be doing the analysis. Not required of nephelometric analysis method.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis. May be blank since a certified operator may be doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

Binder 15
5/12/78

EXHIBIT NO: WAQC.312
PAGE 2 OF 3

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the beginning of the compliance period, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation. Only 'C' and 'D' will be checked for compliance.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the end of the compliance period, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise zero.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise zero.

EXHIBIT NO: WAQC.312 PAGE 3 OF 3

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO:	CATALOGUE NO:	DATA ELEMENT NAME:	DESCRIPTION:
19	337	VIF-SAMPLES-NUM-TAKEN	Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise zero.
20	337	VIF-SAMPLES-NUM-TAKEN	Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise zero.
21	343	VIF-VIOLATION-TYPE	A code identifying the type of violation. See CVT for description.
22	344	VIF-VIOLATION-DATE	Date of the beginning of the compliance period, converted from Julian format.
23	349	VIF-VIOLATION-DURATION	Number of days in the compliance period.
24	347	VIF-SAMPLING-FREQ-VIOL	Sampling frequency in hours, which was violated.
25	330	VIF-REGULATION-LEVEL	The regulation level of the violation.

```
           WAQC061
                                              1 of 1
                                              2/11/77
   RADIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE
              THE UNIVERSITY OF CINCINNATI COMPUTING CENTER
Exhibit WAQC.313


WAQC061                                        MODEL STATE INFORMATION SYSTEM
                                              WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX
                                              RADIOLOGICAL SAMPLING VIOLATIONS REPORT
PERIOD XX/XX/XX TO XX/XX/XX
                                                                                                PAGE ZZZZ9

  PWS-ID     ---PUBLIC WATER SYSTEM NAME---
                                                   REGION
1 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 2                             DISTRICT
                                                  3 XX                                            ----NOTIFY---
  -------------LABORATORY--------------                                   4 XX                     PUBLIC   STATE
   ID                    NAME                                                                    5             6
7 XXXXX                                         ------------CONTAMINANT-------------
                                                 ID             NAME                         ---------PWS------------
                                          8                                                    TYPE  POPULATION  SOURCE
                                               9 XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10     11 X  12 XXXXXXXXX  13 X
 ---SAMPLE----       SAMPLING  ------NUMBER XXXXXXX SAMPLES----
  DATE    TYPE        CUT-OFF        REQUIRED               TAKEN         -------VIOLATION-------
                       DATE      FEDERAL  STATE     FEDERAL  STATE      TYPE    DATE     DURATION    SAMPLING-        REGULATION
                                                                                          (MONTHS)   FREQUENCY          LEVEL
XX/XX/XX  X        XX/XX/XX       XXXX    XXXX       XXXX    XXXX                                   VIOLATED
                                                                         XX  XX/XX/XX      XXX
   14     15          16           17      18          19     20         21     22          23         XXX              XX
 PWS-ID     ---PUBLIC WATER SYSTEM NAME---                                                            24               25
                                                     REGION
XXXXXXX                                                                            DISTRICT
                                                       XX                                           ----NOTIFY---
 -------------LABORATORY--------------                                                XX             PUBLIC   STATE
  ID                    NAME
                                                 ------------CONTAMINANT------------
XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              ID            NAME                          ---------PWS-----------
                                                                                                TYPE  POPULATION  SOURCE
---SAMPLE----       SAMPLING  ----NUMBER XXXXXXX SAMPLES----   XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 DATE    TYPE        CUT-OFF       REQUIRED              TAKEN                                      X    XXXXXXXXX    X
                      DATE     FEDERAL  STATE     FEDERAL  STATE       -------VIOLATION-------
                                                                     TYPE    DATE     DURATION     SAMPLING-       REGULATION
XX/XX/XX  X        XX/XX/XX      XXXX    XXXX       XXXX    XXXX                      (MONTHS)    FREQUENCY         LEVEL
                                                                      XX   XX/XX/XX     XXX        VIOLATED

                                                                                                     XXX              XX
```

Binder 15
07/15/82

EXHIBIT NO: WAQC.313 PAGE 1 OF 3

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: No longer printed on this report.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: No longer printed on this report.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: No longer printed on this report.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

EXHIBIT NO: WAQC.313

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format. May be zero if no sample was taken.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: The last day of the 'sampling period'.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise zero.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise zero.

Binder 15
3/1/79

EXHIBIT NO: WAQC.313

PAGE 3 OF 3

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation. See CVT for description.

FIELD NO: 22 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Beginning date of the compliance period in which the sample should have been taken, converted from Julian format.

FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency in years which was violated.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

Binder 15
1/15/82

WAQC045

1 of 1
5/26/81

PROGRAM TITLE **Total Trihalomethanes MCL Violations Report Module**

PROGRAMMER OR DOCUMENTALIST

CHART TITLE Exhibit WAQC.314

CARRIAGE CONTROL TAPE CHAN

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WAQC045 01.01                          MODEL STATE INFORMATION SYSTEM
                                      WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX ①
                                  TOTAL TRIHALOMETHANES MCL VIOLATIONS REPORT                              PAGE XXXX9
PERIOD XX/XX/XX TO XX/XX/XX ②
                                         --- CONTAMINANT ID 2950 ---

  PWS-ID   ---PUBLIC WATER SYSTEM NAME---   REGION   DISTRICT  ----------PWS-----------    ---NOTIFY---       REGULATION
                                                                TYPE POPULATION SOURCE    PUBLIC  STATE          LEVEL
③XXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX④   XX ⑤     XX ⑥    X ⑦  XXXXXXXXX⑧  X ⑨       XX ⑩    XX ⑪           XX ⑫
  ---SAMPLE---   ---------ANALYSIS--------  LAB-ID  -------LABORATORY NAME--------  ---------VIOLATION---------         MCL
  DATE     TYPE   DATE    METHOD   RESULT                                           TYPE  DATE      DURATION         VIOLATED
XX/XX/XX    X   XX/XX/XX   XXX   XXXXXXXXXX  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX  XX/XX/XX  XXX (MONTHS)     XXXXXXXXXX
   ⑬        ⑭      ⑮       ⑯        ⑰        ⑱              ⑲                      ⑳      ㉑          ㉒                 ㉓
  PWS-ID   ---PUBLIC WATER SYSTEM NAME---   REGION   DISTRICT  ----------PWS-----------    ---NOTIFY---       REGULATION
                                                                TYPE POPULATION SOURCE    PUBLIC  STATE          LEVEL
 XXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX       XX        X   XXXXXXXXX   X          XX      XX             XX
  ---SAMPLE---   ---------ANALYSIS--------  LAB-ID  -------LABORATORY NAME--------  ---------VIOLATION---------         MCL
  DATE     TYPE   DATE    METHOD   RESULT                                           TYPE  DATE      DURATION         VIOLATED
XX/XX/XX    X   XX/XX/XX   XXX   XXXXXXXXXX  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX  XX/XX/XX  XXX (MONTHS)     XXXXXXXXXX

  PWS-ID   ---PUBLIC WATER SYSTEM NAME---   REGION   DISTRICT  ----------PWS-----------    ---NOTIFY---       REGULATION
                                                                TYPE POPULATION SOURCE    PUBLIC  STATE          LEVEL
 XXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX       XX        X   XXXXXXXXX   X          XX      XX             XX
  ---SAMPLE---   ---------ANALYSIS--------  LAB-ID  -------LABORATORY NAME--------  ---------VIOLATION---------         MCL
  DATE,    TYPE   DATE    METHOD   RESULT                                           TYPE  DATE      DURATION         VIOLATED
XX/XX/XX    X   XX/XX/XX   XXX   XXXXXXXXXX  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX  XX/XX/XX  XXX (MONTHS)     XXXXXXXXXX

  PWS-ID   ---PUBLIC WATER SYSTEM NAME---   REGION   DISTRICT  ----------PWS-----------    ---NOTIFY---       REGULATION
                                                                TYPE POPULATION SOURCE    PUBLIC  STATE          LEVEL
 XXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XX       XX        X   XXXXXXXXX   X          XX      XX             XX
  ---SAMPLE---   ---------ANALYSIS--------  LAB-ID  -------LABORATORY NAME--------  ---------VIOLATION---------         MCL
  DATE     TYPE   DATE    METHOD   RESULT                                           TYPE  DATE      DURATION         VIOLATED
XX/XX/XX    X   XX/XX/XX   XXX   XXXXXXXXXX  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   X  XX/XX/XX  XXX (MONTHS)     XXXXXXXXXX
```

228.01(R)

EXHIBIT NUMBER: WAQC.314 PAGE 1 OF 2

PROGRAM NUMBER: WAQC045

TITLE: Total Trihalomethanes MCL Violations Report

FIELD NO: 1
CATALOGUE NO:
DATE ELEMENT NAME:
DESCRIPTION: The processing date used as input to Step 1 of the proc WAQCCOM1 (module WAQC025).

FIELD NO: 2
CATALOGUE NO:
DATA ELEMENT NAME:
DESCRIPTION: The beginning and ending dates of the quarterly sampling period now being processed for TTHM compliance.

FIELD NO: 3
CATALOGUE NO: 326
DATA ELEMENT NAME: VIF-PWS-ID
DESCRIPTION: The number used to identify the PWS within the state.

FIELD NO: 4
CATALOGUE NO: 327
DATA ELEMENT NAME: VIF-PWS-NAME
DESCRIPTION: The name of the PWS.

FIELD NO: 5
CATALOGUE NO: 352
DATA ELEMENT NAME: VIF-REGION
DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 6
CATALOGUE NO: 353
DATA ELEMENT NAME: VIF-DISTRICT
DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 7
CATALOGUE NO: 328
DATA ELEMENT NAME: VIF-PWS-TYPE
DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 8
CATALOGUE NO: 329
DATA ELEMENT NAME: VIF-POPULATION
DESCRIPTION: Population served by the PWS.

FIELD NO: 9
CATALOGUE NO: 332
DATA ELEMENT NAME: VIF-SOURCE-CODE
DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 10
CATALOGUE NO: 350
DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
DESCRIPTION: A flag telling whether public notification was given.

FIELD NO: 11
CATALOGUE NO: 351
DATA ELEMENT NAME: VIF-NOTIFY-STATE
DESCRIPTION: A flag telling whether state notification was given.

FIELD NO: 12
CATALOGUE NO: 330
DATA ELEMENT NAME: VIF-REGULATION-LEVEL
DESCRIPTION: The regulation level of the violation.

FIELD NO: 13
CATALOGUE NO: 335
DATA ELEMENT NAME: VIF-SAMPLE-DATE
DESCRIPTION: Date of the last sample used in the period, converted from Julianized format.

FIELD NO: 14
CATALOGUE NO: 354
DATA ELEMENT NAME: VIF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 15
CATALOGUE NO: 341
DATA ELEMENT NAME: VIF-ANALYSIS-DATE
DESCRIPTION: Date on which the Analysis Result of the last sample used in this period was obtained.

FIELD NO: 16
CATALOGUE NO: 338
DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
DESCRIPTION: Code identifying the Analysis Method used. See the CVT for description.

FIELD NO: 17
CATALOGUE NO: 339
DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
DESCRIPTION: The 'final average' analysis result, units are as expressed in the Regs.

FIELD NO: 18
CATALOGUE NO: 333
DATA ELEMENT NAME: VIF-LAB-ID
DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 19
CATALOGUE NO: 339
DATA ELEMENT NAME: VIF-LAB-NAME
DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 20
CATALOGUE NO: 343
DATA ELEMENT NAME: VIF-VIOLATION-TYPE
DESCRIPTION: A code identifying the type of violation.

FIELD NO: 21
CATALOGUE NO: 344
DATA ELEMENT NAME: VIF-VIOLATION-DATE
DESCRIPTION: The first day of the sampling period in which the violation occurred.

FIELD NO: 22
CATALOGUE NO: 349
DATA ELEMENT NAME: VIF-VIOLATION-DURATION
DESCRIPTION: The number of months the violation occurred.

FIELD NO: 23
CATALOGUE NO: 345
DATA ELEMENT NAME: VIF-MCL-VIOLATED
DESCRIPTION: The MCL which was violated, units are as expressed in the Regs.

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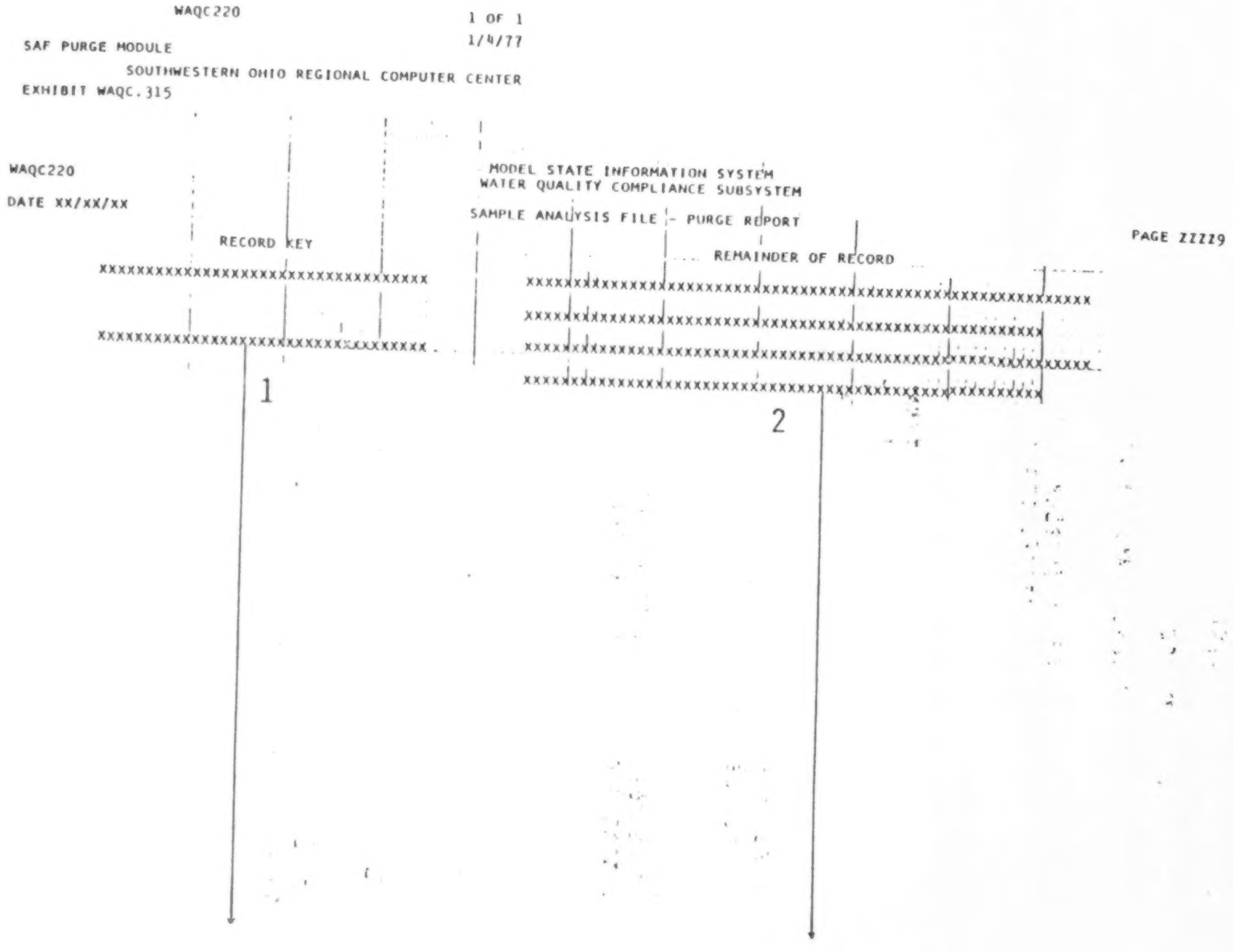

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          WAQC220                               1 OF 1
  SAF PURGE MODULE                              1/4/77
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT WAQC.315


WAQC220                                      MODEL STATE INFORMATION SYSTEM
                                            WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX
                                            SAMPLE ANALYSIS FILE - PURGE REPORT                        PAGE ZZZZ9
                   RECORD KEY
                                                         REMAINDER OF RECORD
      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

EXHIBIT NO: WAQC.315

PAGE 1 OF 1

PROGRAM NO: WAQC220

TITLE: Sample Analysis Purge Report

FIELD NO: 1
DESCRIPTION: Record key; PWS ID, Contaminant ID, location code, sample type, date, time, and key, and record type.

FIELD NO: 2
DESCRIPTION: Remainder of record image.

WAQC220 1 of 1
1/4/77

SAF Purge Module

SouthWestern Ohio Regional Computer Center

EXHIBIT WAQC.316

```
WAQC220                          MODEL STATE INFORMATION SYSTEM
                               WATER QUALITY COMPLIANCE SUBSYSTEM

                            SAMPLE ANALYSIS FILE PURGE STATISTICS REPORT                        PAGE ZZZZ9

                                                                          % RELATIVE TO THE
                                                                 TOTAL     ORIGINAL FILE

               1. NUMBER OF RECORDS ORIGINALLY ON THE FILE     ZZZ,ZZZ,ZZ9 1
                                                                              |
               2. NUMBER OF RECORDS PURGED FROM FILE           ZZZ,ZZZ,ZZ9 2    ZZZ9 % 3
               3. NUMBER OF RECORDS NOW ON FILE                ZZZ,ZZZ,ZZ9 4    ZZZ9 % 5
                                                                                 |
```

EXHIBIT NO: WAQC.316 PAGE 1 OF 1

PROGRAM NO: WAQC220

TITLE: Sample Analysis File Purge Statistics Report

FIELD NO: 1
DESCRIPTION: Accumulated record count of input Sample Analysis File.

FIELD NO: 2
DESCRIPTION: Accumulated record count of records purged from the Sample Analysis File.

FIELD NO: 3
DESCRIPTION: Calculation: number of records purged divided by number of records originally on the file.

FIELD NO: 4
DESCRIPTION: Accumulated record count of records written to the output Sample Analysis File.

FIELD NO: 5
DESCRIPTION: Calculation: number of records now on the file divided by number of records originally on the file.